ORDER NO. VRD8704126

Service Manual

Video Cassette Recorder

Panasonic

General Description
Adjustment Procedures
Block/Schematic Diagrams
Exploded Views/Parts List

VHS NTSC Hi-Fi HQ DIGITAL

NV-D80PX

SPECIFICATIONS

ITEM	SPECIFICATION
POWER	SOURCE: 110~120V/220~240V AC 50/60Hz
	CONSUMPTION: 44 watts
RECORDING SYSTEM	2 rotary heads, helical scanning system
	NTSC (SP/LP/SLP)
TV TUNER SYSTEM	VHF: CH2~CH13, CHA2~CHW (NTSC) 75Ω unbalanced UHF: CH14~CH69 (NTSC) 300Ω unbalanced
RF OUT SYSTEM	VHF: US 3 or 4 $66 \pm^{2}_{2.5}$ dBμ, 75Ω terminated
VIDEO	HEADS: 4 rotary heads 1 pair for SP recording, playback and trick play (L-R heads) 1 pc. for LP/SLP recording, playback and trick play (L′-R′ heads)
	INPUT: VIDEO IN Connector (Phono type) 1.0Vp-p, 75Ω terminated
	OUTPUT: VIDEO OUT Connector (Phono type) × 2 1.0Vp-p, 75Ω terminated
AUDIO	HEAD: Normal Audio/Control: 1 Stationary head HD Audio: 2 rotary heads Erase: 1 full track erase

ITEM	SPECIFICATION
AUDIO	TRACK: 1 track (Normal-mono only) 2 channels (HD Sound-Stereo)
	INPUT: AUDIO IN Connector (Phono type) More than −10dBV (316mV), more than 47kΩ
	OUTPUT: AUDIO OUT Connector (Phono type) × 2 −8dBV (400mV), more than 1kΩ
TAPE FORMAT	VHS Cassette tape (Tape width 12.7mm)
TAPE SPEED	NTSC SP: 33.35mm/s LP: 16.65mm/s SLP: 11.1mm/s Record/Playback Time: SLP: 8 hours with 160 min. type tape FF/REW Time: Approx. 5min, with 120min. type tape
DIMENSIONS	430(W) × 109.5(H) × 357(D) mm
WEIGHT	7.9kg
STANDARD ACCESSORIES	1 pc. Infra-red remote controller 1 pc. Digital scanner 1 pc. Programe Sheet 1 pc. Twin-Lead Cable 1 pc. Coaxial Cable 1 pc. 300Ω-75Ω Transformer 1 pc. Stereo type Phono Cable 1 pc. Video Cable (Phono)

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

INTRODUCTION

This service manual contains technical information which will allow service personnels to understand and service this model.
Section 1 presents you with some general information of features and controls, enabling you to become familiar with each function.
Section 2 contributes to your mechanical and electrical adjustment as well disassembly and replacement procedures.
In the case of very common information relating to other models like mechanical adjustments, please refer to each service manual.
Section 3 contains block diagrams which offers you information for checking and understanding each circuit. Schematic diagrams which give you detailed information such as waveforms, voltage data, function e.t.c...
Section 4 contains exploded views and parts list.
Please place orders using the parts list and not the drawing reference unmbers.
If the circuit is changed or modified, this information will be followed by supplementary service manual to be filed with original service manual.

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SAFETY PRECAUTIONS

GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1MΩ and 5.2MΩ.
   When the exposed metal does not have a return path to the chassis, the reading must be ∞.

LEAKAGE CURRENT HOT CHECK (See figure 1.)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5kΩ, 10 watts resistor, in parallel with a 0.15μF capacitor, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

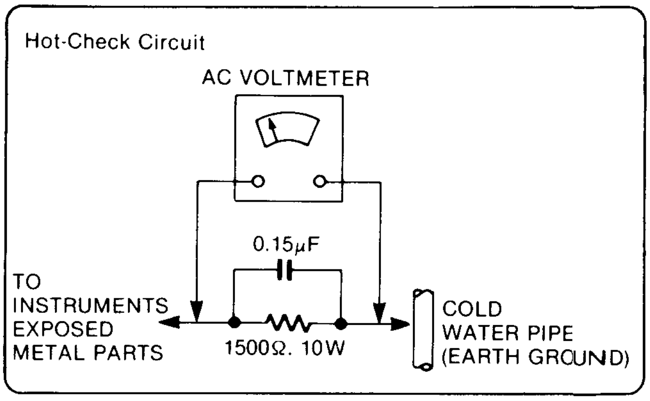

Hot-Check Circuit
AC VOLTMETER
0.15μF
TO INSTRUMENTS EXPOSED METAL PARTS
1500Ω. 10W
COLD WATER PIPE (EARTH GROUND)

Figure 1

ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

FEATURES

1. 8 Hours Recording and Playback

2. On-Screen Display

The present operating conditions can be confirmed on the TV screen.

3. Hi-Fi Stereo System

The revolutionary newly developed hi-fi stereo recording system features two rotary audio heads arranged on the video head cylinder and an FM conversion recording method. The result of this innovative system is superb sound quality with a dynamic range of 80 dB, wide frequency response from 20 Hz to 20 kHz.

4. Recording and Playback of Stereo, Audio II and Monaural TV Program

Recording of TV programs with stereo or audio II (second language) sound is possible, and the desired sound version can be selected for playback.

5. Recording and Playback of "Simulcast" Sound

This VCR allows recording and playback of the stereo sound of TV programs broadcast via "Simulcast" by connecting an FM tuner to the Audio Input Sockets.

6. Use as a High-Quality Audio Cassette Recorder

The excellent audio quality, outstanding tape economy, continuous 8-hour recording capability, Audio Rec Level Controls and Audio Level Meter make this VCR ideal for use as a top-quality audio cassette recorder.

7. Digital Scanner

This Digital Scanner lets you program timer recordings by tracing the corresponding bar codes on the supplied Programming Sheet and then transmitting the data to the VCR.

8. Editing Function

•Dubbing •Insert Editing •Audio Dubbing

9. Auto Voltage Selector

This unit is equipped with an Automatic Voltage Selector. The unit can be used where the local voltage indication is between 110–120 V or 220–240 V, without any manual voltage adjustment.
If your local voltage is between 220–240 V, use the supplied power plug adaptor (VJSS0070).

CAUTION: Voltage settings 110 V, 220 V and 240 V are not intended for use in U.S.A. and Canada.

10. Auto Operation

•Auto Power On •Auto Play •Power Off Eject
•Tape Canceler •Auto Rewind

11. Digital Special Effect

•Digital Still Picture •Strobe Playback
•9-Screen Multi Play •Picture-in-Picture Playback
•Mosaic Art •Graphic Art

12. Search Function

•VHS Index Search •Intro Search •Catalog Search
•Time Search •Memor Function

13. 1-Month Calendar Timer

The clock/timer of the VCR is programed with the calendar up to the end of 2002, so it knows exactly what day of the week it is on any given date. Programing of as many as 8 timer recordings is possible up to one month in advance. In addition, easy programing of the timer recordings is possible both on the VCR itself and via the remote control unit.

14. Super OTR Function (One-Touch Timer Recording)

This convenient function makes it possible to easily program the VCR for recording of TV programs with immediate start or with start within 24 hours and with the starting time and ending time precisely set to the desired minute. When the recording ends, the VCR will automatically turn itself off.

15. Reception of up to 99 TV Stations

16. Programmable Remote Controller (Infrared)

Multi-Function Wireless Remote Controller

17. HQ (High Quality) Picture System

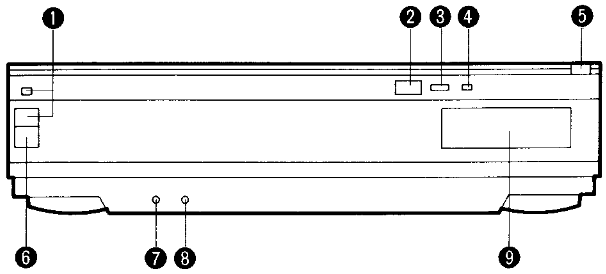
Video recorders carrying the HQ symbol mark feature the new VHS High Quality Picture System. This system assures complete compatibility with VCRs that use the conventional VHS system.

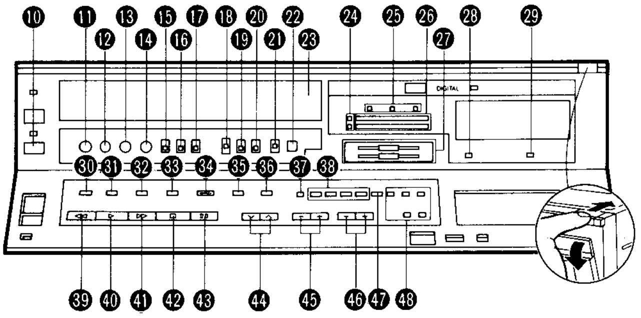
18. Lap Time Indicator

The new Lap Time Indicator is a great improvement over the approximate counter systems of conventional VCRs. It gives you an exact reading of the elapsed tape time in hours, minutes and seconds, and makes it easy to calculate the tape time left on a cassette.

CONTROLS AND COMPONENTS

FRONT





① Power On/Off Switch/Indicator

② Remote Control Receiver Window

③ Digital Indicator

④ Catalog Search Indicator

When the Catalog Button (using the Remote Controller) is pressed on, the Catalog Search Indicator and the Digital Indicator will light up.
The Catalog search is able to be displayed up to 9 programs recorded on a single video tape together in the same picture. In addition, the beginning of a desired program can easily be located by selecting the number of the program with the number buttons.

⑤ Control Panel Open Button

⑥ Cassette-in Indicator

⑦ Headphones Jack

⑧ Microphone Input Jack

⑨ Multi-Function Display

⑩ Eject Button (▲)

⑪ Headphones Level Control

⑫ Tracking Control

⑬ Slow Tracking Control

⑭ Picture Sharpness Control

⑮ Edit Switch

⑯ Forced Mono Switch

If the sound of a Stereo or Audio 2 broadcast is impaived by noise due to weak reception, turn this Switch to On (the Mono Indicator light up) so that the sound will be recorded in mono and becomes easier to listen.

⑰ Tape Speed Selector

For recording either of three tape speeds can be selected.
During playback the recorder selects automatically the correct speed.
Select the desired tape speed with the Tape Speed Selector before recording.
*Set to the "SP" position for normal speed.
*Set to the "LP" or "SLP" position for slow speed. The corresponding indicator lights up during recording and playback.

⑱ Audio Level Meter Selector

⑲ MPX Filter Switch

If the sound is impaired by high frequency distortion when recording from an FM tuner, Set the MPX Filter Switch to "On".
If there is no distortion when recording from an FM tuner, and for all other recording, set this switch to "Off".

⑳ MTS/SAP Select Switch

㉑ Input Signal Selector

㉒ Timer Record Button

㉓ Cassette Compartment

㉔ Audio Playback Mode Indicators

㉕ Audio Indicators

㉖ Audio Level/Hi-Fi Tracking Meter

㉗ Audio Rec Level Controls (L/R)

㉘ Audio Dubbing Indicator

㉙ Insert Editing Indicator

㉚ VCR/TV Selector

㉛ Audio Playback Mode Selector

㉜ Audio Dubbing Button

㉝ Insert Editing Button

㉞ Record Button (●)

㉟ Memory/Search Button

When this button is pressed once, the Memory Indicator "M" will light up, and when it is pressed one more time, the Search Lock Indicator "S" will appear instead. When it is pressed a third time the Search Lock Indicator "S" will disappear.

㊱ Reset/Index Button

㊲ Clock Button

㊳ Timer Controls

㊴ Rewind ◀◀/Review [◀◀] Button

Push this button to rewind the tape. When the Rewind / Review Button is kept pressed while the VTR is in the playback mode, the tape will be played back in reverse direction at about 5 times (SP mode), 9 times (LP and SLP mode) of the normal playback speed.

㊵ Play Button (▶)

㊶ Fast Forward ▶▶/Cue [▶▶] Button

Push this button to wind the tape forward rapidly.
When the Fast Forward / Cue Button is kept pressed while the VTR is in the playback mode, the tape will be playback in forward direction at about 5 times (SP mode), 9 times (LP and SLP mode) of the normal speed.

㊷ Stop Button (■)

㊸ Pause/Still Button (❚❚)

㊹ Channel Selection Up and Down Buttons

㊺ OTR On Buttons

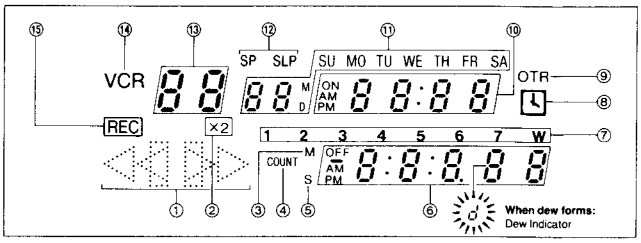
㊻ OTR Off Buttons

㊼ OSD (On-Screen Display) Button

When the OSD Button is pressed, the VCR operating condition, date, day of the week and present time can be confirmed on the TV screen.

㊽ Tuner Set-up Controls

Multi-Function Display



① Tape Running Display

② Double Speed Indicator

③ Memory Indicator

④ Tape Counter Indicator

⑤ Search Lock Indicator

⑥ Tape Counter Display (Lap Time Indicator)

⑦ Timer Program Number

⑧ Timer Recording Indicator

⑨ OTR Indicator

⑩ Clock Display

⑪ Date Display

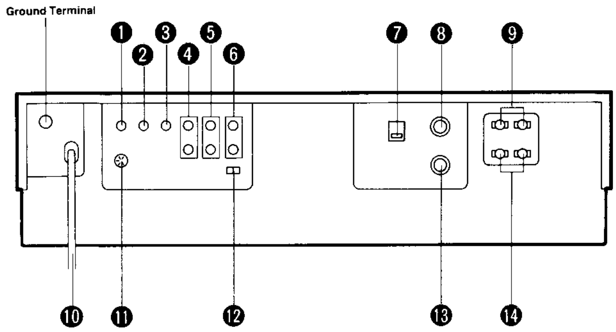
⑫ Tape Speed Indicator

⑬ Channel Display

⑭ VCR Indicator

⑮ Recording Indicator

REAR



① Video Input Jack

② Video Output Jack

③ Video Output Jack

④ Audio Input Jacks

⑤ Audio Output Jacks 1

⑥ Audio Output Jacks 2

⑦ RF Converter Channel Selector

⑧ VHF Antenna Output Connector (TO TV SET)

⑨ UHF Antenna Output Terminals (TO TV SET)

⑩ AC Power Cord

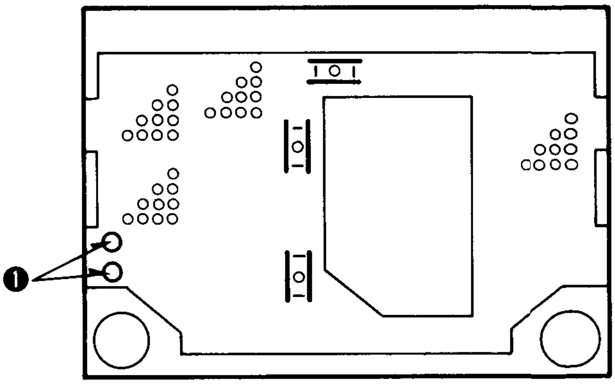
⑪ Editing Control Jack

⑫ Beep On/Off Switch

⑬ VHF Antenna Input Connector
(FROM ANTENNA)

⑭ UHF Antenna Input Terminals
(FROM ANTENNA)

BOTTOM



1. V–LOCK
If a vertical jitter appears on the TV Monitor in Still, F.Advance or Slow mode, adjust the V–lock control so that the monitoring picture can be stabilized.
Once the V–Lock control is adjusted, no more adjustment is required when the connected TV receiver is changed.

PROGRAMABLE REMOTE CONTROLLER (INFRARED)

① **Audio Select Button**

② **Memory/Search Button**

③ **Reset/Index Button**

④ **Timer Record Button**

⑤ **Power On/Off Button**

⑥ **Record Buttons (●)**
To start recording, press the two buttons simultaneously.

⑦ **Stop Button (■)**

⑧ **Pause/Still Button (❚❚)**

⑨ **Play Button (▶)**

⑩ **Rewind ◀◀/Review ⏪ Button**

⑪ **Slow Buttons**
During normal playback, the Slow–motion playback can be activated by pressing the Slow Button. Slow–motion playback between 1/30 and 1/5 of the normal speed can then be obtained by using the Slow (+) or (–) Button.

⑫ **Reverse Playback Button**

⑬ **OSD Button**

⑭ **Intro Scan Button**

⑮ Double Speed Playback Button (×2)

⑯ Fast Forward ▶▶/Cue ⏩ Button

⑰ Field Advance Button (II▶)

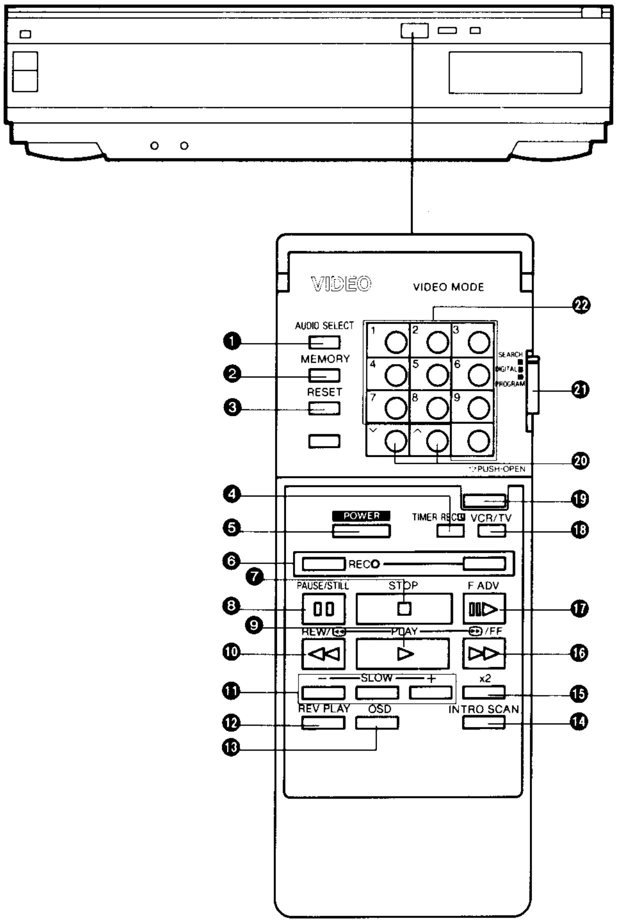
⑱ VCR/TV Selector Button

⑲ Mode Panel Open Button

⑳ Channel Selection Up and Down Buttons

㉑ Mode Panel Selector

㉒ Channel Position Selector Buttons
Two buttons must be pressed to select a desired channel. Therefore, when selecting a channel position between 1 and 9, press the "0" Button first, and then press the desired channel number.



VIDEO
VIDEO MODE
AUDIO SELECT
MEMORY
RESET
1 2 3 4 5 6 7 8 9
SEARCH
DIGITAL
PROGRAM
PUSH·OPEN
POWER
TIMER REC
VCR/TV
RECO
PAUSE/STILL
STOP
F ADV
REW/
PLAY
/FF
SLOW
x2
REV PLAY
OSD
INTRO SCAN
❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾ ❿ ⓫ ⓬ ⓭ ⓮ ⓯ ⓰ ⓱ ⓲ ⓳ ⓴ ㉑ ㉒

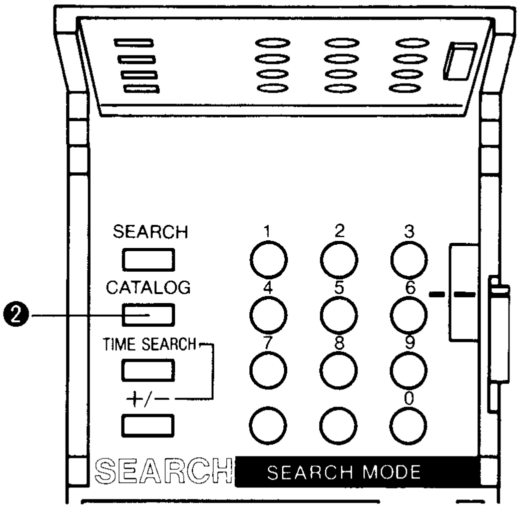
How to Open the Mode Panels

Select the desired mode with the Mode Panel Selector and press the Mode Panel Open Button.

- To change the setting of the Mode Panel Selector, the panel must be closed.
- If the selector setting is changed with the panel open, the panel cannot be closed. In this case, reset the selector to the former position and then close the panel.

Search Mode Panel

These buttons are used to search for a desired scene, to check the recorded content of a tape, etc.



SEARCH
CATALOG
TIME SEARCH
+/−
1 2 3 4 5 6 7 8 9 0
❷
SEARCH
SEARCH MODE

1. 9-Screen Catalog Search

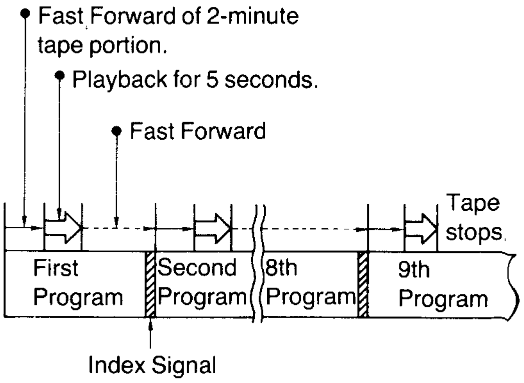
Up to 9 programs recorded on a single video tape can be displayed together in the same picture. In addition, the beginning of a desired program can easily be located by selecting the number of the program with the number buttons.

Open the Search Mode Panel on the Remote Controller and perform the following operations.

❶ Insert a video tape and put the VCR in the stop mode.

❷ Press the Catalog Button.
(The Catalog Search Indicator and the Digital Indicator will light up.)
- The tape is wound in forward direction at high speed.
- The TV screen will be gray.

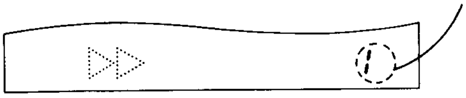
How the 9-Screen Catalog Search Works...
The following operation will be repeated for up to 9 programs.



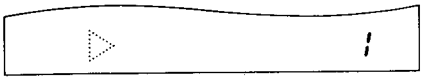
Fast Forward of 2-minute tape portion.
Playback for 5 seconds.
Fast Forward
Tape stops.
First Program
Second Program
8th Program
9th Program
Index Signal

The VCR operates as follows.

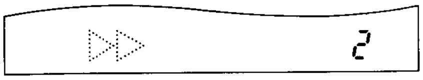
Multi-Function Display Tape Program Indication



(The tape is fast-forwarded for a portion equivalent to 2 minutes playback.)

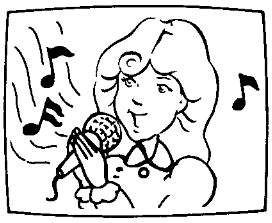


(The tape is played back for 5 seconds.)

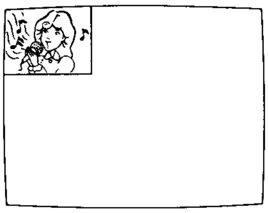


(The tape is fast-forward again. When the next index signal is reached, the Tape Program Indication changes to "2".)

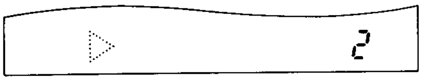
First Program



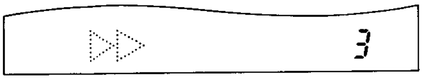
- The picture is played back from a point 2 minutes after the beginning of the program (where the index signal is recorded).



- The picture is displayed in the still playback mode.



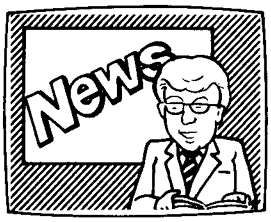
(After the tape is fast-forwarded for a portion equivalent to 2 minutes playback, it will be played back for 5 seconds.)

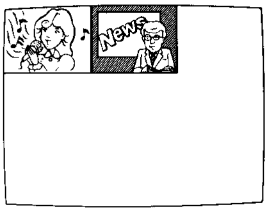


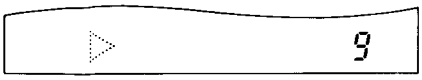
(The tape is again fast-forwarded, and when the next index signal is reached, the Tape Program Indication changes to "3".)
The same operation will be operated up to the 9th program.

- To stop the Catalog Search operation midway, press the Stop Button.

Second Program



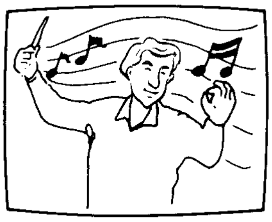


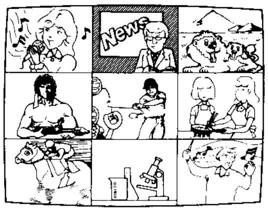


After this operation is performed for the 9th program, the VCR will switch over to the stop mode.

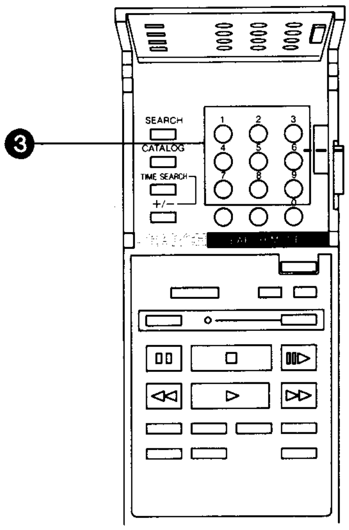
- When the end of a tape containing less than 9 programs is reached, it will automatically be rewound to the beginning and the VCR switched over to stop.

9th Program





How to Select the Desired Tape Program

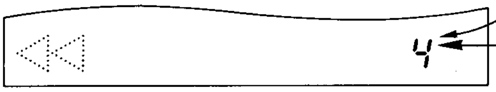


To change from the Tape Program Indication, press the Search Button on the Remote Controller twice.

- Changing over to the Tape Counter Indication will cancel the 9-Screen Catalog Search function.

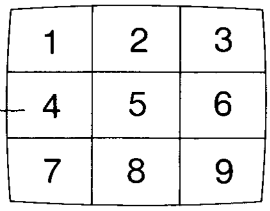
Tape Program Indication

❸ Select the number of the desired program by pressing the appropriate number button.



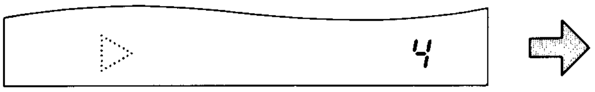
The tape will be rewound or fast-forwarded.

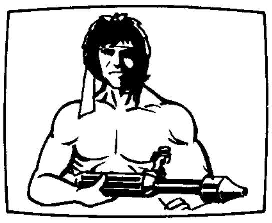
- To change the program you want to watch, stop the tape, and then press the number button of the desired program.



1	2	3
4	5	6
7	8	9

- Select the desired program with the appropriate number button.





When the beginning (where the index signal is recorded) of the desired program is reached, the playback will start.

- If the playback is stopped by pressing the Stop Button, the picture of 9-Screen Catalog Search will again be displayed on the screen.

For Convenient Use

The 9-screen catalog picture can be insert-recorded at the beginning of the tape, as a visual table of contents. This lets you confirm at a glance, what programs are recorded on each tape.

How to Insert-Record the 9-Screen Catalog Picture.

❶ Display the 9-screen catalog picture by using the 9-Screen Catalog Search function.

❷ Rewind the tape to the beginning.

❸ Put the VCR into the still playback mode.

❹ Press the Insert Button.

❺ Press the Pause/Still Button.

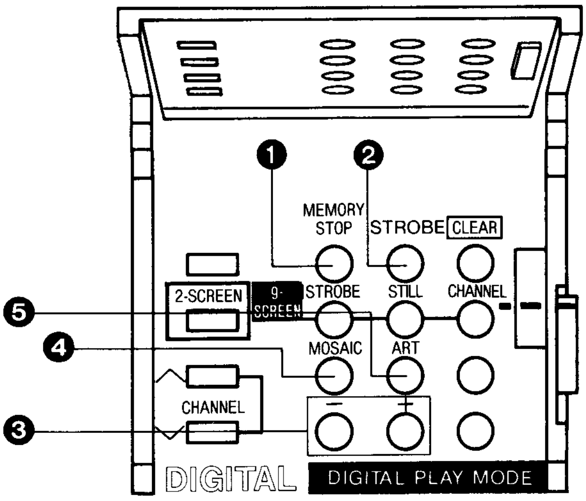
- The insert recording starts. To stop the recording, press the Pause/Still Button.
- For a cassette tape on which the 9-screen catalog picture was recorded, the VHS Index Search System can be used to quickly locate the beginning of the desired program.
- When recording on a tape from the beginning, it is recommended to leave about 10 seconds blank or to record some unimportant picture so that you can later record the 9-screen catalog picture as a visual table of content in that place.
- When the part where the 9-screen catalog picture was recorded is played back in any other than the normal playback mode, the picture may be distorted.

- If the recording time of a program is less than 7 minutes in the LP or SLP mode, or less than 5 minutes in the SP mode, the 9-Screen Catalog Search function may not work for the next program.
- If the 9-Screen Catalog Search is performed from somewhere in the middle of the tape, the Tape Program Indication shows "1" at that position.
- When another digital function is operated, the 9-Screen Catalog Search function will be cancelled.
- If a non-recorded part of the tape is played back during the 9-Screen Catalog Search, the Blue Background function will work and the picture will be in blue. However, this blue picture will not be displayed in the 9-screen catalog picture.
- While the Catalog Search Indicator is lit, it is not possible to perform slow, still or still advance playback in the digital mode.
- When the tape is ejected, the 9-Screen Catalog Search function will be cancelled.

Digital Play Mode Panel

1. Digital Special Effect

By opening the Digital Play Mode Panel of the Remote Controller and performing the operations below, the various digital picture effects can be enjoyed not only for video tape playback, but also for the picture of TV broadcasts (recorded via the TV tuner in the VCR) as well as for the picture from other equipment connected to the Video/Audio Input Jacks.



Digital Memory Stop

This function produces a digital still picture.

❶ Press the Memory Stop Button.
- To return to the normal moving picture, press this button again.

Digital Strobe

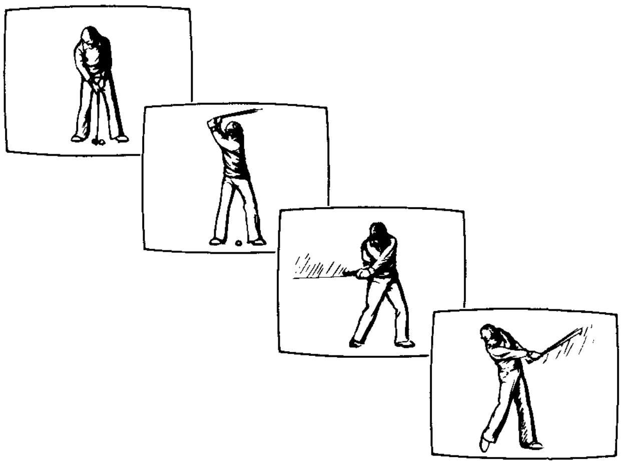
This function changes the picture successively in steps to give it a strobe-picture like effect.

❷ Press the Strobe Button.
- To return to the normal moving picture, press this button again.

❸ To change the intervals of the strobe, press the (+) or (−) Button.

+ .... The intervals become shorter up to 1/10th of a second.

− .... The intervals become longer up to 1 second.



Digital Mosaic Art

This function breaks up the picture into small squares to give it a mosaic-like effect.

❹ Press the Mosaic Button.
- To return to the normal picture, press this button again.

❸ To change the size of the squares, press the (+) or (−) Button.

+ ...... The squares become larger.

− ...... The squares become smaller.

Digital Graphic Art

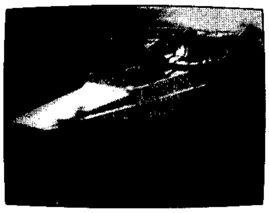
This function gives the picture an oil-painting-like effect.

❺ Press the Art Button.
- To return to the normal playback, press this button again.

❸ To make the effect stronger or weaker, press the(+) or (−) Button.

+ ...... The effect becomes stronger.

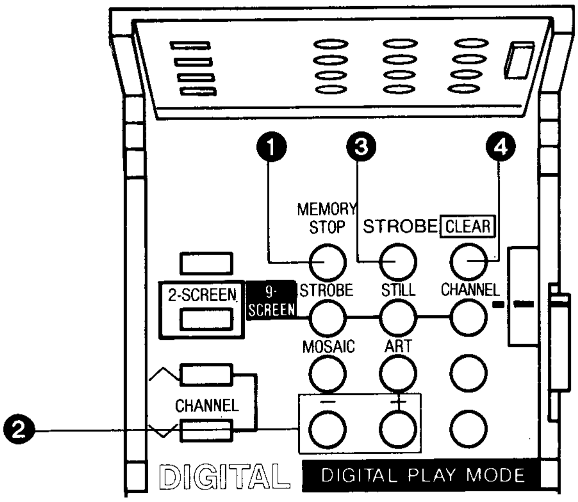
− ...... The effect becomes weaker.



- It is impossible to record digital picture effects on this VCR.
- When these digital functions are used, a part of the original (non-digital) picture may appear at the bottom of the screen of some types of the TV sets.
- If these digital picture effects are recorded from this VCR onto another VCR and the recorded picture is played back, the picture will be somewhat distorted at the beginning and end of tape portion where the digital function was used. To prevent this distortion, put the recording VCR into the recording pause mode and then operate the digital function of this VCR.
  If the recorded picture with digital effect is played back in Cue or Review mode, the picture may be distorted.

2. Multi-Screen function

Open the Digital Play Mode Panel and perform the operations below.

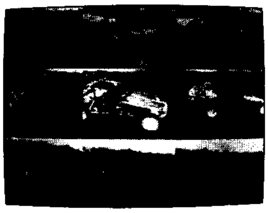


9-Screen Multi Strobe

(This function can be used for TV broadcasts, video tapes, external sources.)
The 9-Screen Multi Strobe function displays still pictures, that are automatically taken at regular intervals, in the 9 screen segments and updates (renews) them continually.

❶ Press the 9-Screen Strobe Button.

❷ To change the intervals between pictures, press the (+) or (−) Button.
+ ...... The intervals become shorter up to 1/10th of a second.
− ...... The intervals become longer up to 1 second.



9-Screen Digest

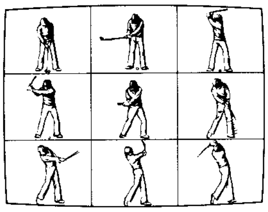
(This function can be used for TV broadcasts, video tapes, external sources.)
When the VCR is in the 9-Screen Multi Strobe mode, the Still Button can be used to stop the automatic strobe effect and manually freeze the moving picture at desired intervals.

❸ Press the Still Button.
- Every time this button is pressed, the picture of that moment will be displayed as a still-picture, and the moving picture will continue in the next screen segment.

9-Screen Still

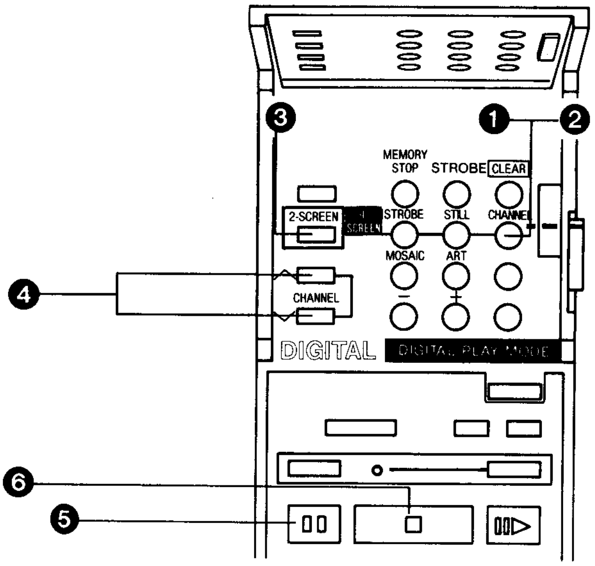
(This function can be used for video tape playback only.)
Put the VCR into the still or slow playback mode.

❶ Press the 9-Screen Strobe Button.
- The picture advances frame by frame and the first 9 still pictures will be displayed in the 9 screen segments. The tape will then stop in the pause mode.
- At every push of the 9-Screen Strobe Button, the next 9 frames will be displayed.
- If the upper part of the picture is distorted, adjust the slow tracking control.



❹ To return to the normal moving picture, press the Clear Button.

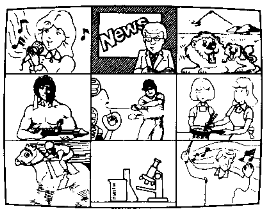
- When the multi-screen functions of this VCR are used, the display on the screen is automatically adjusted so that all 9 segments are displayed in their entirety. Therefore, especially with older type TV sets having roundish picture tubes, the 9 segments may not fill the entire screen, and parts of the non-digital picture may be visible along the edges.



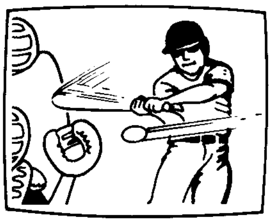
9-Screen Channel Guide (The sound is not reproduced)

(This functioin can be used for TV broadcast only.)
The presently broadcast programs of 9 TV stations will be displayed one after another. This makes it possible to confirm at a glance what programs are being broadcast.

❶ While watching a TV program from the tuner in the VCR, press the Channel Button.
- The moving picture of the first program (channel) position will be displayed for about 0.5 second and then frozen in the first screen segment. This will be repeated for up to 9 program positions.
- Up to 9 broadcasts will be displayed starting from the lowest program position.
- After the 9 pictures of 9 channels are all displayed, the same operation will be repeated.



❷ While the moving picture of the desired program is still displayed, press the Channel Button.
- The selected program will be displayed on the whole screen.

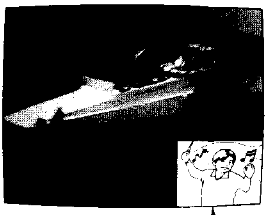


- When a channel is displayed on which no station is tuned, the whole picture may become distorted. For this reason, all unoccupied channels should be blanked by pressing the Skip Button (the channel indication becomes "– –", when the tuner in the VCR is originally tuned.
- In case less than 9 channels are occupied with stations, the same operation will be repeated from the upper left screen segment, after the pictures of tuned program positions (channels) have been displayed.

Picture in Picture (The sound of the TV broadcast is reproduced.)

(This function can be used for video tape playback only.)
It is possible to watch a TV broadcast on a small segment of the screen while playing back a tape.

❸ Press the 2-Screen Button during playback of a tape. The tape will be stopped in the Still playback mode.



The picture of the TV program will be displayed in a small picture segment.

❹ To change the TV program position (channel), press the Channel Selection Up or Down Button.

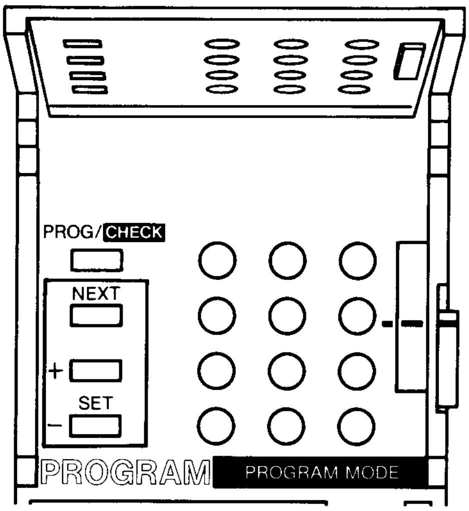
❺ To watch the playback picture of the tape on the whole screen, press the Pause/Still Button.

❻ To watch the TV program (small picture) on the whole screen, press the Stop Button.

- When the Picture-in-Picture playback is performed, a horizontal line may roll downward in the small picture. However, this is not due to any malfunction.
- If the Picture-in-Picture playback continues for more than 5 minutes, the VCR will automatically switch over to the stop mode, and the picture of the TV broadcast will be displayed on the whole screen.
- When the TV channel is changed during the Picture-in-Picture playback, the picture may roll vertically. In this case, press the 2-Screen Button twice.

Program Mode Panel

These buttons are used for programing timer recordings.



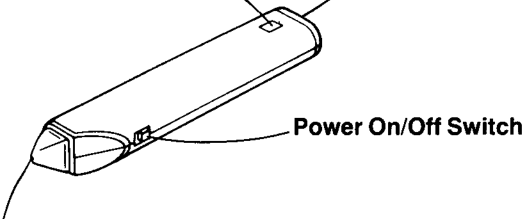
Note:

- The infrared beam should be transmitted directly to the Remote Control Receiver on the front of the VCR.
- Direct sunlight may interfere with the beam.
- The lightsensing angle of the Remote Control Receiver window in the VCR is about 60°.
- The unit should be used within a range of about 7 meters from the front of the VCR.

DIGITAL SCANNER

The Digital Scanner lets you program timer recordings by tracing the corresponding bar codes on the supplied Programming Sheet and then transmitting the data to the VCR.

Names and Functions



Transmit Button
Press to transmit the programing data to the VCR.

Transmitting Section
The programed data are transmitted from here to the VCR.

Power On/Off Switch

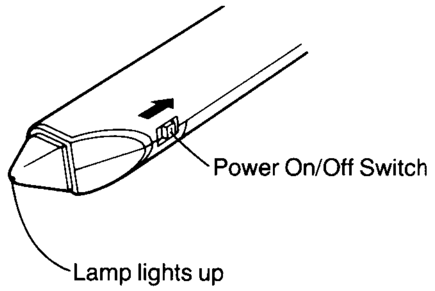
Bar Code Reading Section
When the scanner is turned on, the red lamp will be lit.

How to Operate the Digital Scanner

Before using the Digital Scanner, batteries must be inserted.

Turning the Digital Scanner On

Set Power On/Off Switch to "ON".

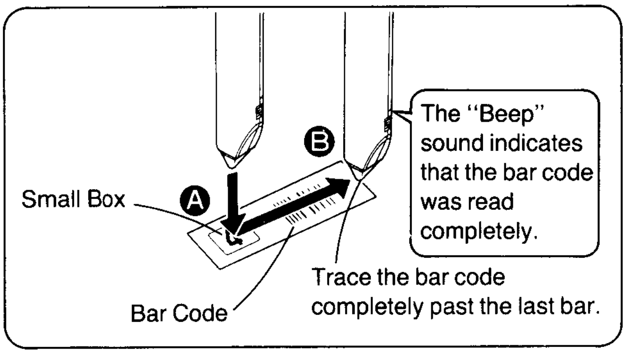


- If no operation is performed for more than 25 seconds, the scanner will automatically switch over to the power-saving standby condition and the lamp will go off. (In this case, if bar codes have already been read but not yet transmitted to the VCR, the data will be cancelled.)
- When the Power On/Off Switch is set to "ON" but the lamp is not lit, set the switch to "OFF" and then to "ON" again.

Tracing the Bar Codes

Ⓐ Place the Digital Scanner vertically on the Small Box.

Ⓑ Trace the bar code quickly in the direction of the arrow.


Ⓑ
Small Box
Ⓐ
Bar Code
The "Beep" sound indicates that the bar code was read completely.
Trace the bar code completely past the last bar.

- If the bar code is traced slowly, it cannot be read correctly.
- When there is no "Beep" sound, the reading of the bar code is incomplete. Trace the bar code again.
- When using the Programming Sheet, put it on flat surface. Reading bent the bar codes or reading them while holding it in your hand may cause incorrect operation.
- Do not deviate from the bar code, nor stop tracing halfway.
- Do not slant the scanner to trace the bar code.

Programing a Timer Recording

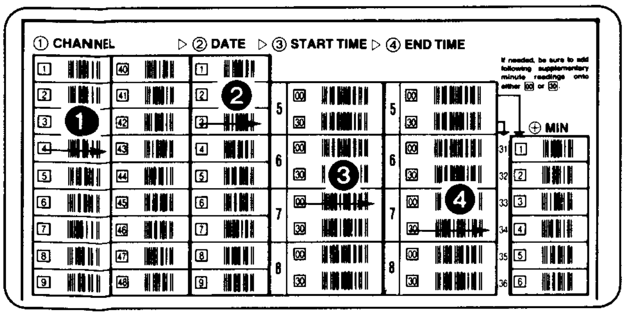
Example: When programing a timer recording for a program that will be broadcast on channel position 4 on the 3rd of the month, from 7:00 AM to 7:30 AM, trace the bar codes in the order of the numbered arrows shown below.

❶ Trace the bar code for "CHANNEL".

❷ Trace the bar code for "DATE".

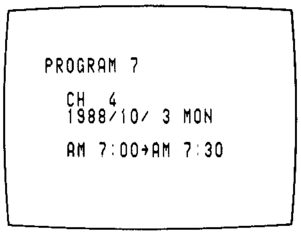
❸ Trace the bar code for "START TIME".

❹ Trace the bar code for "END TIME".


① CHANNEL ▷ ② DATE ▷ ③ START TIME ▷ ④ END TIME
❶
❷
❸
❹
⊕ MIN

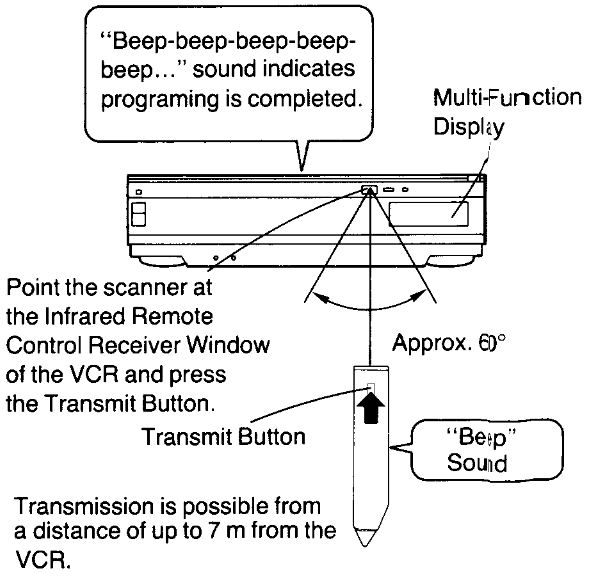
- The "Bee Bee Bee Bee Beeeeep" sound singals that the scanner is now ready for data transmission.
- When no sound is heard, read the bar codes once again.
- If more than one bar code is traced in the same group, only the last tracing will be effective.
- The bar codes for the time from "12:00 AM" (midnight) to "4:59 AM" in the morning are on the back of the Programming Sheet.
- If the "CANCEL" bar code is read, all bar codes that have been read so far will be cancelled.
- The channel numbers 79 to 99 are on the back of the Programming Sheet.

❺ Keep pressing the Transmit Button and confirm that the programed data on the Multi-Function Display of the VCR are as desired.
After releasing the button, the data will continue to be displayed for about 12 seconds.



```
PROGRAM 7
 CH  4
 1988/10/ 3 MON
 AM 7:00→AM 7:30
```

If the TV set is turned on and set to the video playback channel, the programed timer recording data will be displayed as shown on the left for easy confirmation. If "PLEASE SET CLOCK" is displayed on the TV screen when the transmission is performed, set the VCR clock to the present time and then perform programing again.


"Beep-beep-beep-beep-beep..." sound indicates programing is completed.
Multi-Function Display
Point the scanner at the Infrared Remote Control Receiver Window of the VCR and press the Transmit Button.
Approx. 60°
Transmit Button
"Beep" Sound
Transmission is possible from a distance of up to 7 m from the VCR.

- If the transmission was not received correctly, the "Beep-Beep, Beep-Beep" sound from the VCR will warn you. In this case, perform transmission again.
- The transmission is possible when the VCR is turned on but is not in any of the recording or playback operation modes. It is also possible when the VCR is in the timer recording standby mode (⊡ indication is lit).
- The programing will be done on the next lower unoccupied timer program number (7~1).
  If all programe numbers are occupied, the "Beep-Beep, Beep-Beep" sound from the VCR will warn you that the programing cannot be made.
- When the Transmit Button is pressed, the VCR will automatically be put into the timer recording standby condition and the VCR will be turned off.
- To operate the VCR before the timer recording will be performed, press the Timer Rec. Button to suspend the timer recording standby condition. After using the VCR, be sure to press the Timer Rec. Button again, otherwise the timer recording will not be made.

For Programing More Than One Timer Recording in Succession

Repeat the following operation steps ①–③.

① Trace the "CANCEL" bar code on the Programming Sheet.

CANCEL

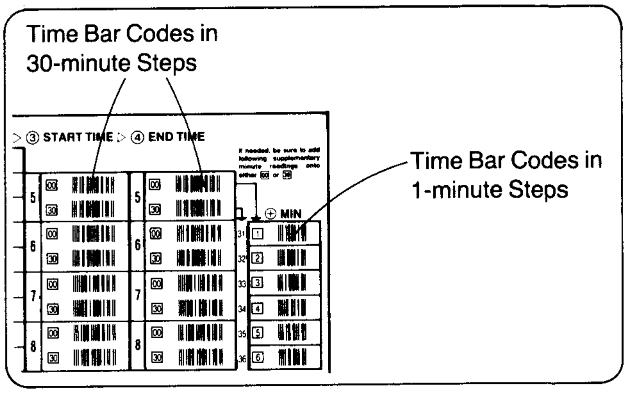
② Trace the bar codes for "CHANNEL", "DATE", "START TIME" and "END TIME".

③ Confirm that the present time is displayed on the Multi-Function Display of the VTR, and transmit the data.

- If the next timer programing data are transmitted while the previous timer programing data are still being displayed, the displayed timer recording data will be cancelled.

How to Trace the Bar Codes for Start and End Times

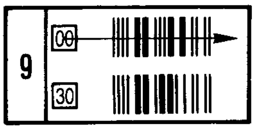
There are two kinds of time bar codes on the Programming Sheet: time bar codes selectable in 30-minute steps and in 1-minute steps.


Time Bar Codes in 30-minute Steps
③ START TIME
④ END TIME
Time Bar Codes in 1-minute Steps
+ MIN
5
6
7
8
00
30
31
32
33
34
35
36

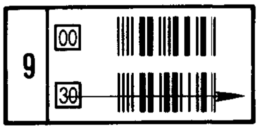
① Setting the Time in 30-minute Steps

- Trace the appropriate bar code in the 30-minute-step column only.

For example: when setting to "9:00 AM"



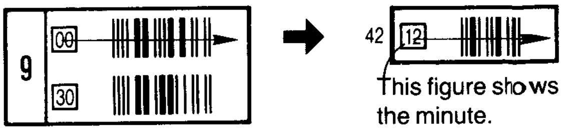
For example: when setting to "9:30 AM"



② Setting the Time in 1-minute Steps

- When setting to a minute between 1 and 29, trace the appropriate "+MIN" bar code after tracing the 00 bar code.

For example: when setting to "9:12 AM"

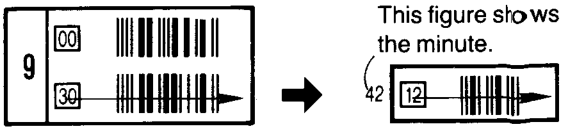


This figure shows the minute.

- When setting to a minute between 31 and 59, trace the appropriate "+ MIN" bar code after tracing the 30 bar code.

For example: when setting to "9:42 AM"

This figure shows the minute.



- When a timer bar code with 00 or 30 minutes is traced for the end time, the "Bee Bee Bee Bee Beeeeep" sound which indicates reading completion is heard. When subsequently tracing a "+MIN" bar code after tracing 00 or 30 to choose another minute setting, the reading completion sound will be heard again.

For Everyday Recording

① Turn on the Digital Scanner and trace the "CHANNEL" bar code.

② Trace the "EVERYDAY" bar code.
- The "EVERYDAY" bar code is on the back of the Programming Sheet.

EVERYDAY

③ Trace the "START TIME" and then the "END TIME" bar codes, and transmit the data to the VCR.
- Everyday recording will be performed from that day on.
- If a "DATE" bar code is traced after tracing the "EVERYDAY" bar code, everyday recording will not be performed.

For Everyweek Recording

① Turn on the Digital Scanner and trace the "CHANNEL" bar code.

② Trace the bar code for the desired day of the week among the "EVERYWEEK" bar codes.

	EVERY WEEK
Sunday	SU
Monday	MO
Tuesday	TU
Wednesday	WE
Thursday	TH
Friday	FR
Saturday	SA

③ Trace the "START TIME" and then the "END TIME" bar codes, and transmit the data to the VCR.
- Everyweek recording will be performed from that week on.
- If a "DATE" bar code is traced after tracing the "EVERYWEEK" bar code, everyweek recording will not be performed.

To Confirm the Program of a Timer Recording

To perform this operation, the VCR must be turned on or it must be in the timer recording standby mode (⏲ indication is lit).
- The programed data will also be displayed on the TV screen.

① Trace the "CHECK" bar code.

CHECK

② Perform transmission.
- After releasing the Transmit Button, the programed data will be displayed for about 8 seconds (for about 25 seconds, if the ⏲ indication is not lit) on the Multi-Function Display.
- At every push of the Transmit Button, the timer program number abvances to the next higher number.

To Cancel a Programed Timer Recording

To perform this operation, the VCR must be turned on but not be in any of the recording or playback operation modes, or it must be in the timer recording standby mode (⏲ indication is lit). To cancel a programed timer recording, its data must be displayed on the Multi-Function Display. If they are no longer displayed, first, trace the "CHECK" bar code and perform transmission (several times, if necessary, until the program you want to cancel is displayed). Then, within 8 seconds (within 25 seconds, if the ⏲ indication is not lit):

① Trace the "CANCEL" bar code.

② Perform transmission.
- To program a new timer recording, perform the programing from the beginning.

Cautions
- Treat the Programming Sheet with care. If the sheet gets dirty or scratched, the bar code reading may become impossible.
- Protect the Digital Scanner from strong shocks and vibration. Keep it away from water and places with high temperature and humidity.

Recommendation

To save battery power, make sure to set the Power On/Off Switch to "OFF" after using the Digital Scanner. When the batteries are exhausted, the bar code reading can no longer be performed.

DISASSEMBLY PROCEDURES

1. DISASSEMBLY FLOW CHART

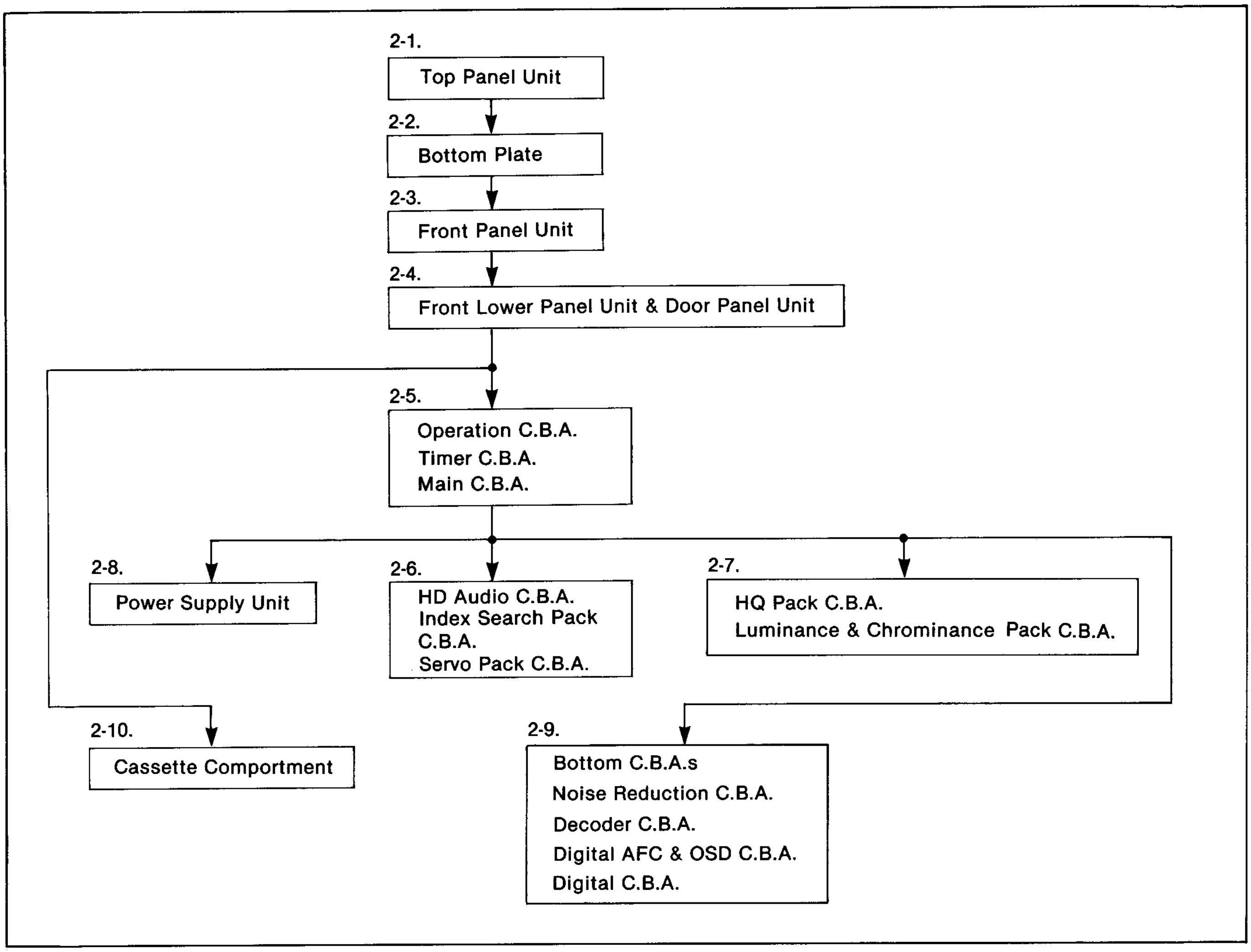

2-1.
Top Panel Unit
2-2.
Bottom Plate
2-3.
Front Panel Unit
2-4.
Front Lower Panel Unit & Door Panel Unit
2-5.
Operation C.B.A.
Timer C.B.A.
Main C.B.A.
2-8.
Power Supply Unit
2-6.
HD Audio C.B.A.
Index Search Pack C.B.A.
Servo Pack C.B.A.
2-7.
HQ Pack C.B.A.
Luminance & Chrominance Pack C.B.A.
2-10.
Cassette Comportment
2-9.
Bottom C.B.A.s
Noise Reduction C.B.A.
Decoder C.B.A.
Digital AFC & OSD C.B.A.
Digital C.B.A.

Figure D1

The above flowchart describes the order of stops for removing the cabinet parts and certain printed circuit boards in order to gain access to the items needing servicing. To reassemble the unit,follow the steps in reverse order.

2. DETAILED DISASSEMBLY METHOD

2–1. Remove of the Top Panel Unit

1. Unscrew 4 screws(A) on the Top Panel Unit. (Figure D2)
2. Carefully lift the rear of case to remove.

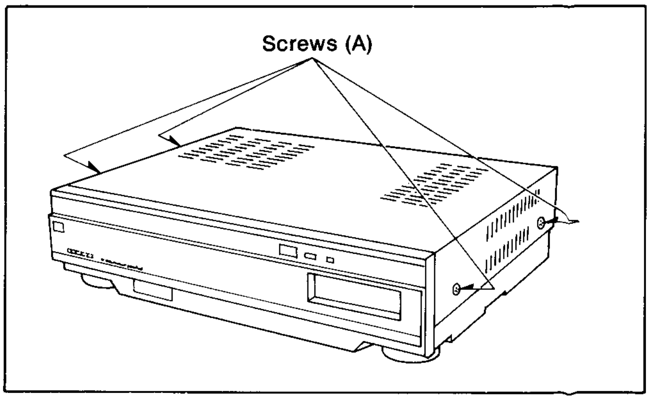


Figure D2

2–2. Removal of the Bottom Plate

1. Unscrew 8 screws(B).(Figure D3)
2. Lift off the Bottom Plate.

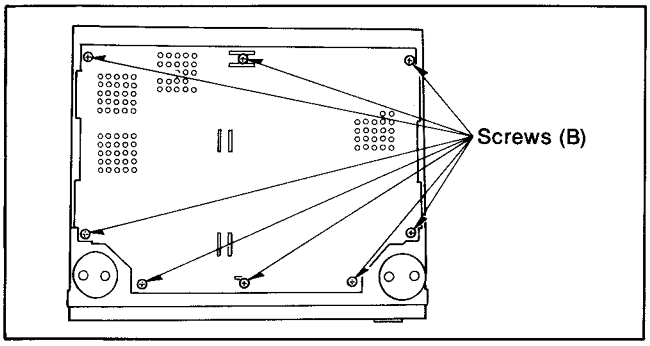


Figure D3

2–3. Removal of Front Panel Unit

1. Open the Door Panel Unit.
2. Unscrew 2 screws(C) and unlock 5 locking portions(D). (Figure D4)

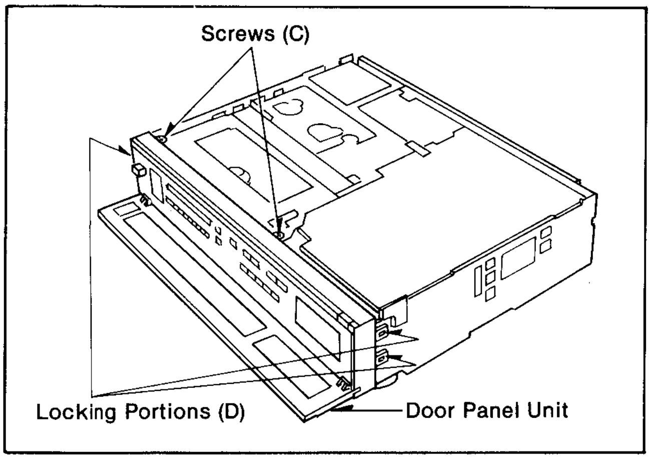

Screws (C)
Locking Portions (D)
Door Panel Unit

Figure D4

2–4. Remove of Front Lower Panel Unit and Door Panel Unit

1. Unscrew 6 screws(E) and then shut the Door Panel Unit.(Figure D5)

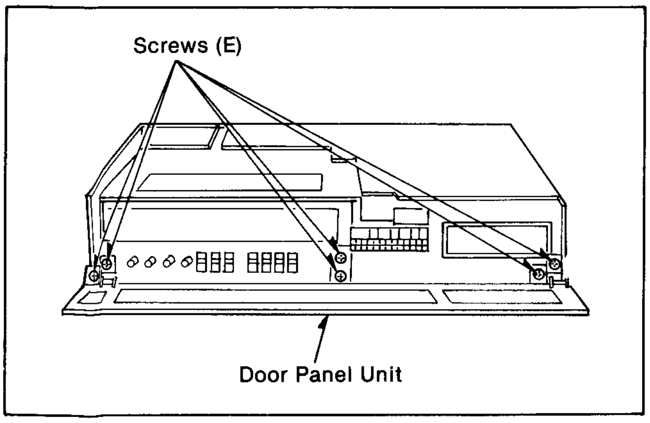

Screws (E)
Door Panel Unit

Figure D5

2. Remove the Jack Cover and unlock 3 locking potions(F). (Figure D6)
3. Remove the Front Lower Panel Unit.

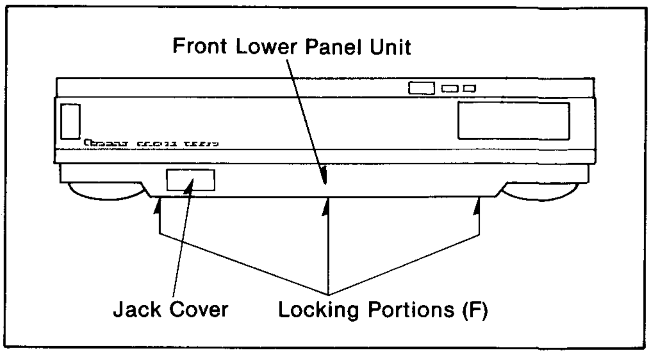

Front Lower Panel Unit
Jack Cover
Locking Portions (F)

Figure D6

4. Unlock the connector lock of P7502 on the Timer C.B.A. and remove the flexible wire. (Figure D7)
5. Unscrew 3 screws(G) and carefully remove the Door Panel Unit.

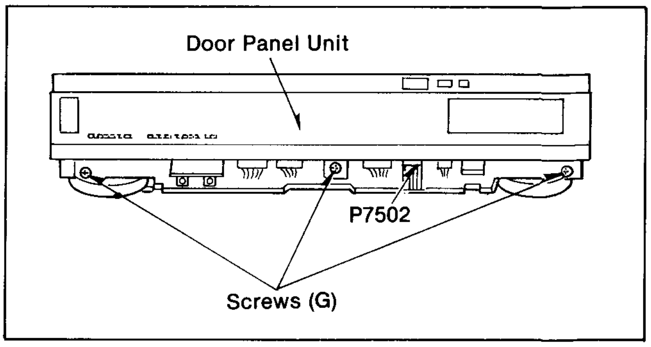

Door Panel Unit
P7502
Screws (G)

Figure D7

2–5. Opening of the Operation C.B.A., Timer C.B.A., Jack C.B.A. and Main C.B.A.

1. Unscrew 6 screws(H) and unlock 5 locking portions(I). (Figure D8)
2. Disconnect P7508 on the Timer C.B.A. (Figure D8)
3. Unlock 2 wire clampers and carefully open the Operation C.B.A., Timer C.B.A. and Jack C.B.A. (Figure D8)

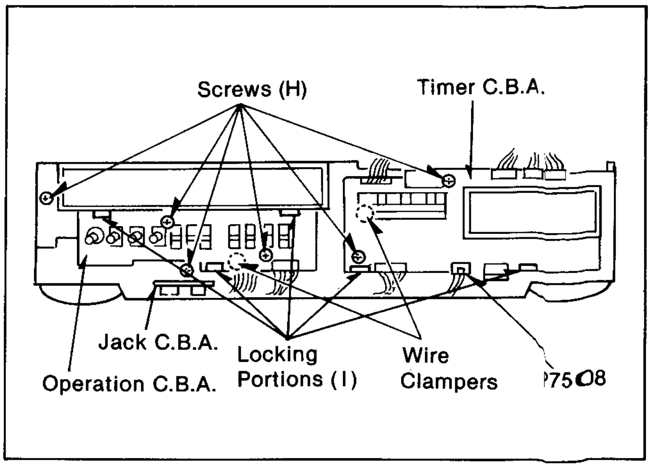

Screws (H)
Timer C.B.A.
Jack C.B.A.
Operation C.B.A.
Locking Portions (I)
Wire Clampers
7508

Figure D8

4. Unscrew 5 screws(J) on the rear panel. (Figure D9)

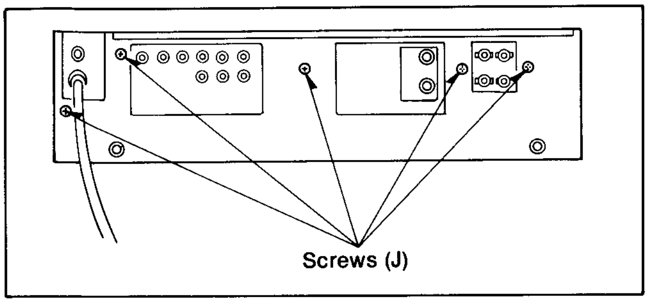


Figure D9

5. Unscrew 6 screws(K) on the Main C.B.A. and earth screw(L) on the cassette compartment. (Figure D10)

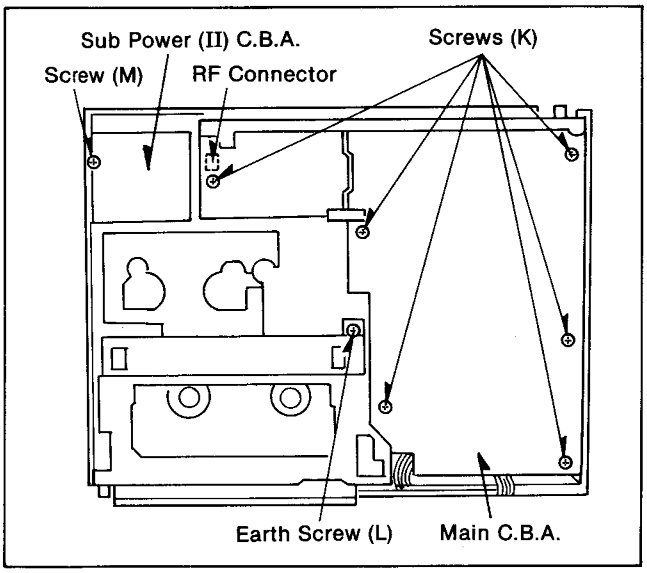

Sub Power (II) C.B.A.
Screws (K)
Screw (M)
RF Connector
Earth Screw (L)
Main C.B.A.

Figure D10

6. Unscrew a screw(M) on the Sub Power (II) C.B.A. and the open the Sub Power (II) C.B.A.
7. Disconnect the RF Connector and carefully lift the Main C.B.A.

2–6. Opening of HD Audio C.B.A., Index Search and Servo Pack C.B.A.

1. Opening of Main C.B.A. and unlock 2 locking portions(n). (Figure D11)
2. Open up the HD Audio C.B.A.

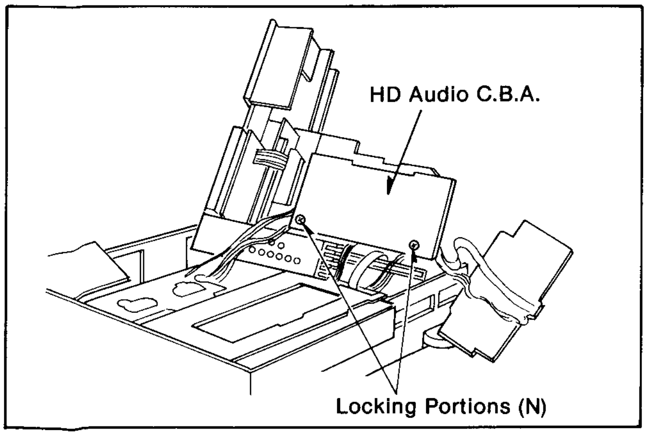

HD Audio C.B.A.
Locking Portions (N)

Figure D11

3. Unlock 2 locking portions(O) and open up the Index Search Pack C.B.A. (Figure D12)

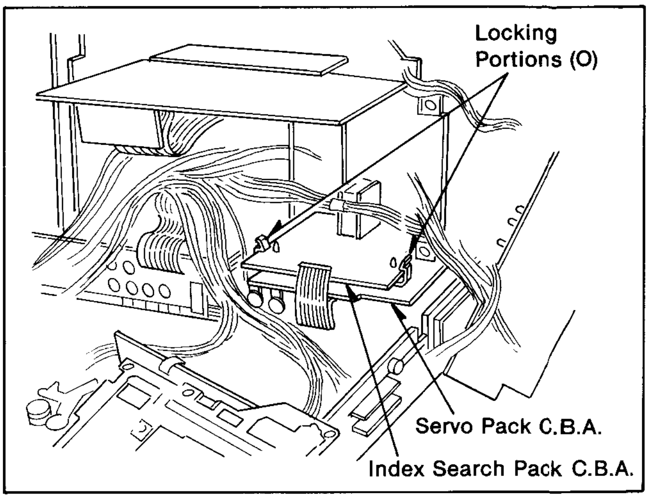

Locking Portions (O)
Servo Pack C.B.A.
Index Search Pack C.B.A.

Figure D12

2–7. Opening of the HQ Pack C.B.A. and Luminance & Chrominance Pack C.B.A.

1. Unlock 3 locking portions(P) and open the HQ Pack C.B.A. (Figure D13)

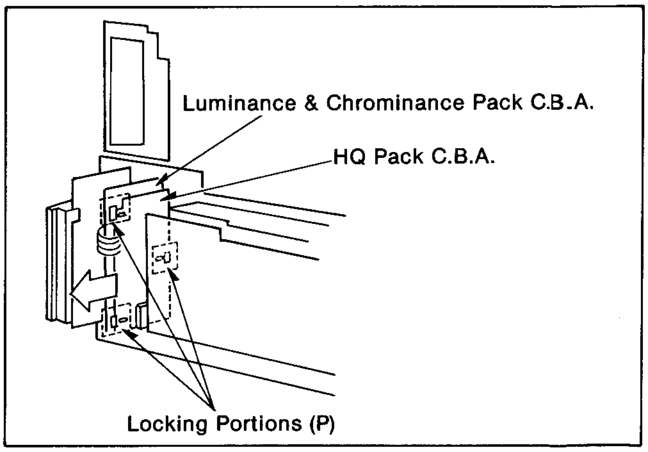

Luminance & Chrominance Pack C.B.A.
HQ Pack C.B.A.
Locking Portions (P)

Figure D13

2–8. Removal of Power Supply Unit

1. Remove 2 screws(Q) and take it out from the Main C.B.A. (Figure D14)
Remove the shield case then checking can be performed.

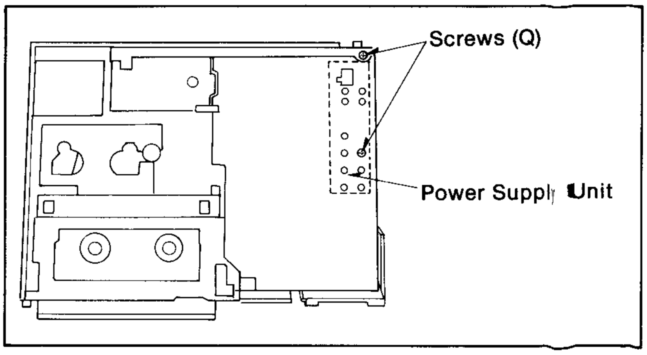

Screws (Q)
Power Supply Unit

Figure D14

2–9. Opening of Bottom C.B.A.s

1. Unscrew 7 screws(R) and opening of Digital AFC & OSD C.B.A., Noise Reduction C.B.A. and Decoder C.B.A.
2. Unscrew 4 screws(S) and remove the shield box. (Figure D15)

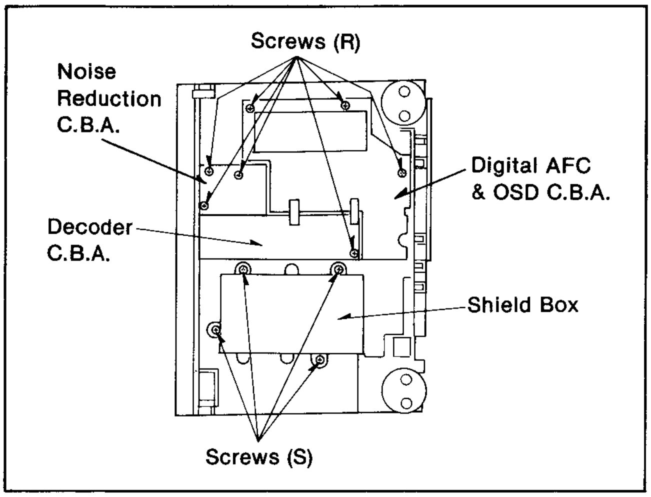

Screws (R)
Noise Reduction C.B.A.
Digital AFC & OSD C.B.A.
Decoder C.B.A.
Shield Box
Screws (S)

Figure D15

3. Unscrew 2 screws(T) and open the shield cover. Remove the Digital C.B.A. (Figure D16)

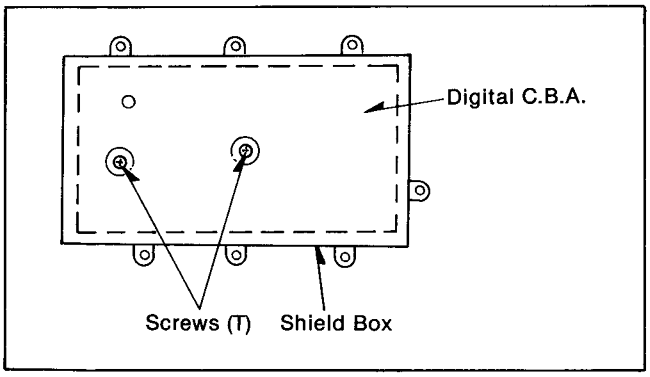

Digital C.B.A.
Screws (T)
Shield Box

Figure D16

2–10. Removal of Cassette Compartment

1. Remove 2 screws(U) and slide the cassette holder until appearing 2 screws (V) by turning (clockwise) the Capstan Rotor Unit (located in the bottom side as shown in Figure D17) and then remove 2 screws (V).
2. Remove the flexible wire from connector P1503 on the Photo TR(T) C.B.A., then carefully pull out the Cassette Compartment.

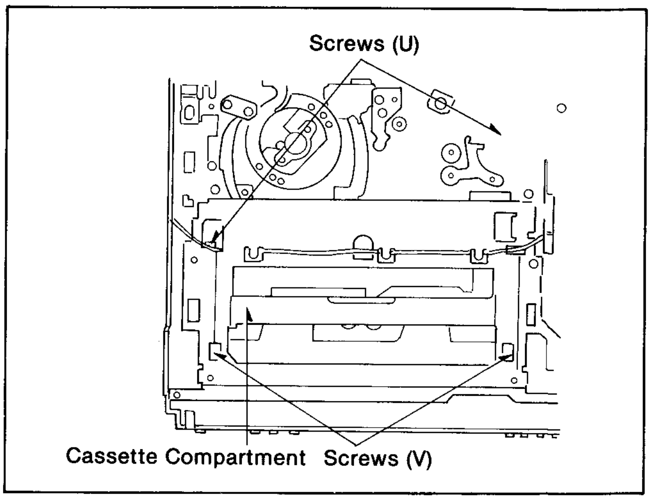

Screws (U)
Cassette Compartment
Screws (V)

Figure D17

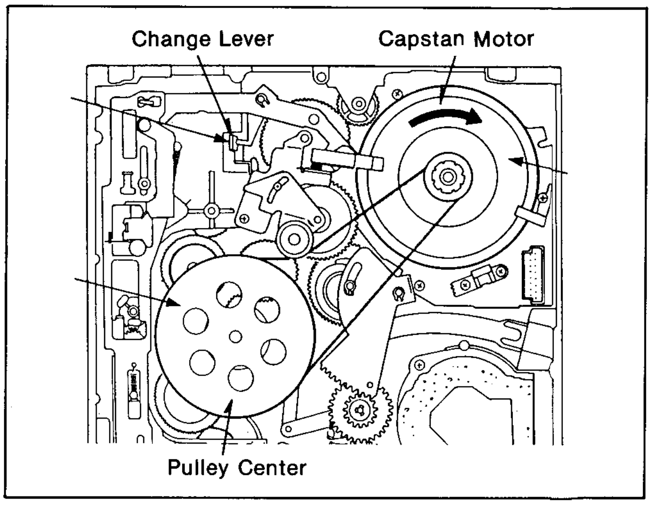

Change Lever
Capstan Motor
Pulley Center

Figure D18

Note:
When reinstalling the Cassette Compartment, mechanical adjustment must be performed for correct working, refer to Mechanical Adjustment Service Manual for No.G Mechanical chassis (order No. VRD8701105) item 3–10 Reinstallation of Cassette Compartment

MECHANICAL ADJUSTMENT PROCEDURES

This Mechanical Chassis of this model NV-D80PX is the same as the G Mechanical Chassis. Therefore please refer to the Service Manual G Mechanical Chassis (Order No. VRD8701105).

ELECTRICAL ADJUSTMENT PROCEDURES

This section provides complete electrical adjustment procedures which may be required for electronic circuits of VHS video Cassette Recorders.

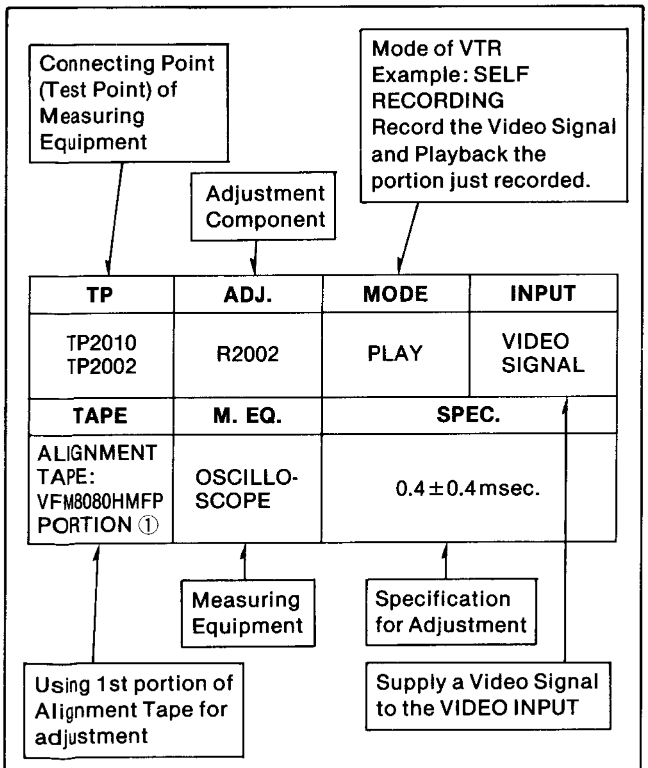
1. TEST AND SERVICE EQUIPMENT

To perform the electrical adjustments completely, following equipments are required.

1. VTVM (Vacuum Tube Volt Meter) or DVM (Digital Volt Meter)
   Voltage Range: 0.001~50V
2. Dual-Trace Oscilloscope
   Voltage range: 0.005~50V/div.
   Frequency Range: DC~30MHz
   Probes: 10:1
3. Frequency counter
   Frequency Range: 0~10MHz
4. Signal Generator (Sinewave)
   Frequency Range: 0~500KHz
5. Video Sweep Generator
   Frequency Range: 0~10MHz
6. Colour Monitor TV
7. Plaastic Tip Driver
8. VHS Alignment Tape (VFM8080HMFP)
9. Pattern Generator

2. ADJUSTMENT PROCEDURES

2-1. HOW TO READ THE ADJUSTMENT PROCEDURES


Connecting Point (Test Point) of Measuring Equipment
Adjustment Component
Mode of VTR Example: SELF RECORDING Record the Video Signal and Playback the portion just recorded.
Measuring Equipment
Specification for Adjustment
Using 1st portion of Alignment Tape for adjustment
Supply a Video Signal to the VIDEO INPUT

TP	ADJ.	MODE	INPUT
TP2010 TP2002	R2002	PLAY	VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE: VFM8080HMFP PORTION ①	OSCILLO-SCOPE	0.4±0.4msec.	

Note: If ☒ appears in any block, this means it is not used or not important.

Figure E1

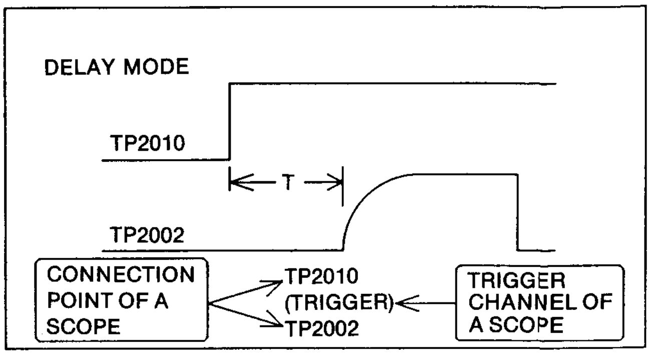

DELAY MODE
TP2010
T
TP2002
CONNECTION POINT OF A SCOPE
TP2010 (TRIGGER)
TP2002
TRIGGER CHANNEL OF A SCOPE

Figure E2

Note:
Before the electrical adjustment, set the VHS VTR as following conditions except for especial instructions in each adjustment item.

1) Tracking Control VR --- Center Fix position
2) Slow Tracking VR --- Center Fix position
3) Edit SW --- OFF
4) Mono SW --- OFF
5) Tape Speed --- SP
6) Mpx Filter --- OFF
7) Input Select --- LINE

2-2. POWER SUPPLY SECTION

2-2-1. REG. 5V ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP1003	VR1003	☒	☒
TAPE	**M. EQ.**	**SPEC.**	
☒	D.V.M.	5.1±0.05V	

2-2-2. REG. 5V ADJUSTMENT (ON VEP01288A)

TP	ADJ.	MODE	INPUT
TP1403 (HOT) TP1404 (GND)	VR1401	☒	☒
TAPE	**M. EQ.**	**SPEC.**	
☒	D.V.M.	5.0±0.05V	

2-3. SERVO SECTION

2-3-1. PG SHIFTER ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2001 TP3002	VR2001	PLAY	
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE VFM8080HMFP PORTION: ①	OSCILLO-SCOPE	6.5±0.5H	

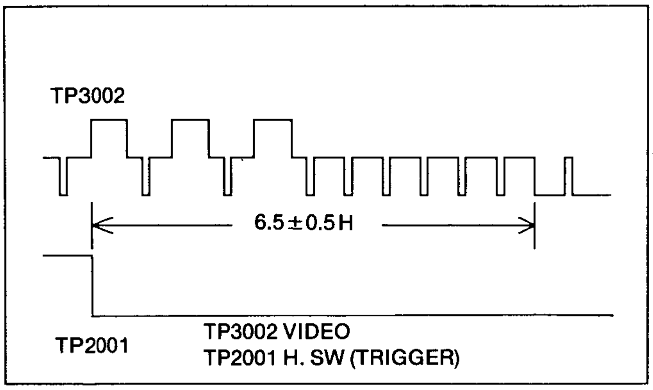


Figure E3

2-3-2. TRACKING FIX ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2001 TP2002	VR2002	SELF RECORDING	VIDEO SIGNAL (MONO SCOPE)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	T=0±0.4msec.	

1. Set the TRACKING VR to the center fix position.
2. Record video signal, then play back the just recorded portion.
3. 4djust VR2002 so that the period of "T" becomes 0 +– 0.4msec as shown in Fig. E4.

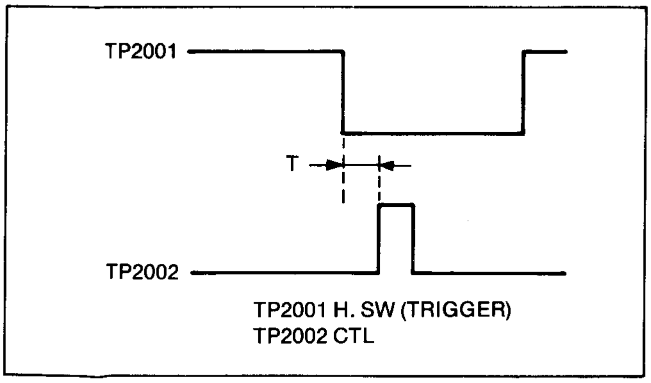


Figure E4

2-3-3. SLOW FREE RUN ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2015	VR2013	STILL	VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE (60min type)	FREQUENCY COUNTER	648±10Hz	

1. Record video signal and play back the just recorded portion.
   Then place the unit in STILL mode.
2. Connect the jumper wire between TP2025 and GND.
3. Connect the jumper wire between TP2026 and GND.
4. Connect the frequency counter to TP2015.
5. Adjust the VR2013 so that the frequency is 648 +– 10Hz.

2-3-4. SLOW TRACKING ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2020 TP2002	VR2011	SLOW	VIDEO SIGNAL (MONO SCOPE)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	TV MONITOR	NO NOISE BAND	

1. Set the SLOW TRACKING VR to centre fix position.
2. Record video signal and play back the just recorded portion. Then place the unit in SLOW mode.
3. Adjust VR2011 so that the noise band does not appear on the TV monitor.

Note:
Prior to the above adjustment, the Slow Freerun adjustment should be always completed.

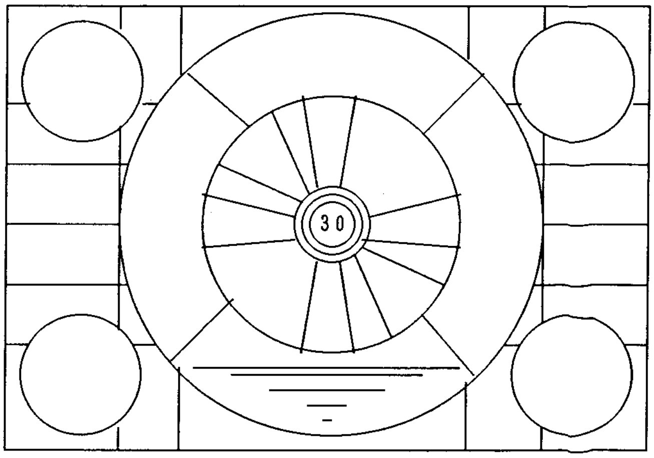


Figure E5

2-3-5. ARTIFICIAL V-SYNC ADJUSTMENT

TP	ADJ.	MODE	INPUT
TV MONITOR	VR2010 (2H) VR2009 (6H)	SELF RECORDING	VIDEO SIGNAL (MONO SCOPE)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	TV MONITOR		

1. Record video signal and play back the just recorded portion. Then place the unit in STILL mode.
2. Adjust the volume (VR2010, VR2009) on the Servo pack so that the V–dancing does not appear on the TV monitor as shown in Fig. E6.
3. Confirm that the V–dancing does not appear in CUE and REVIEW modes. If the V–dancing is appeared on the TV monitor, this adjustment should be repeated again.

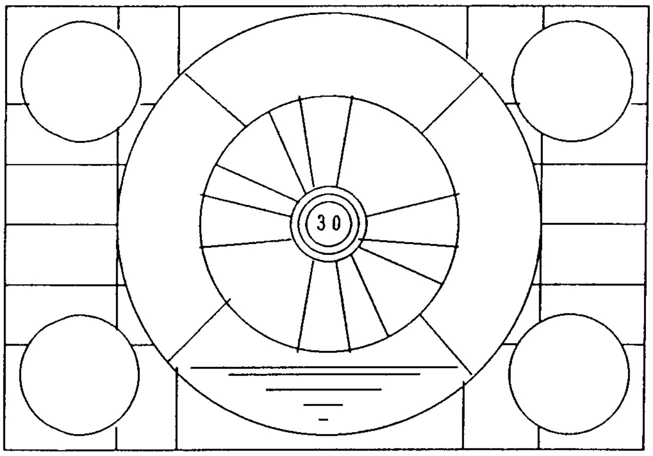


Figure E6

2-4. LUMINANCE, CHROMINANCE & HEAD AMP SECTION

2-4-1. CHROMINANCE & LUMINANCE RECORDING CURRENT ADJUSTMENT

∗ CHROMINANCE RECORDING CURRENT ADJ.

TP	ADJ.	MODE	INPUT
TP503 (HOT) TP504 (GND)	VR502	RECORDING (SLP)	VIDEO SIGNAL (COLOR BAR)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	44±5mVp-p	

∗ LUMINANCE RECORDING CURRENT ADJ.

TP	ADJ.	MODE	INPUT
TP503 (HOT) TP504 (GND)	VR501	RECORDING (SLP)	VIDEO SIGNAL (COLOR BAR)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	120±5mVp-p	

1. Connect the oscilloscope to TP503 (HOT) and TP504 (GND). Then place the unit in SLP RECORDING mode.
2. Set the VR501 to minimun position, so that luminance recording current signal must be closed to observe the chrominance recording current signal.
3. Adjust VR502 so that the chrominance recording current level is 44 +– 5mVp–p shown in Figure E7.

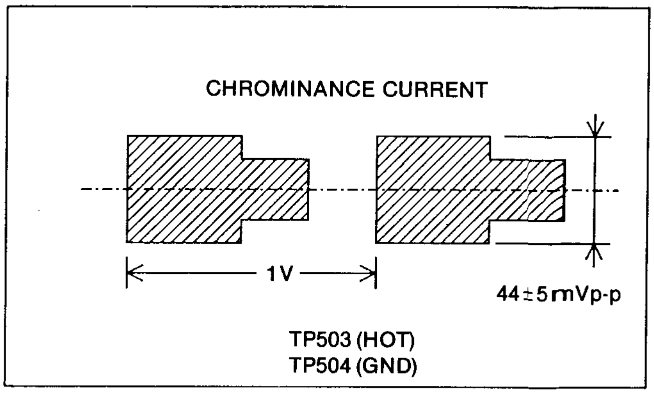


Figure E7

4. Adjust VR501 so that the luminance recording current level 120 +– 5mVp–p.

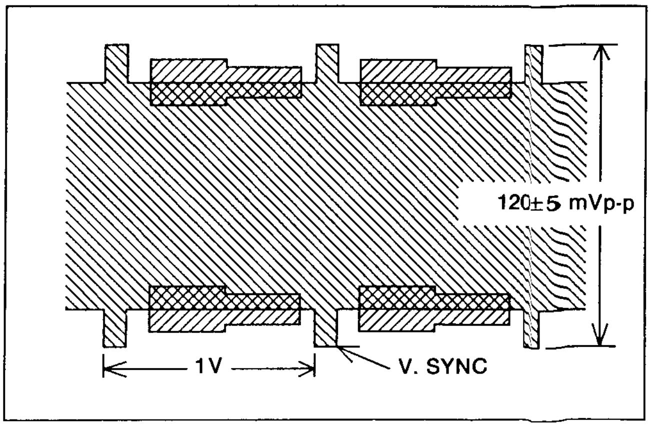


Figure E8

2-4-2. VIDEO LEVEL (1) ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT (TP3002)	VR307	STOP	VIDEO SIGNAL (COLOR BAR)
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE	1.0±0.05Vp-p	

1. Connect the jumper wire between JS3701–9 and 10 on HQ PACK C.B.A.
2. Connect a capacitor (0.1 uF) between JS3701–6 and 7 on HQ PACK C.B.A.
3. Connect the oscilloscope to Video Line output (TP3002).
4. Adjust VR307 so that the Video Level is 1.0 +– 0.05Vp–p.

Note:
This adjustment should be completed before the Video level (2) adjustment (VR3707 and VR3706).

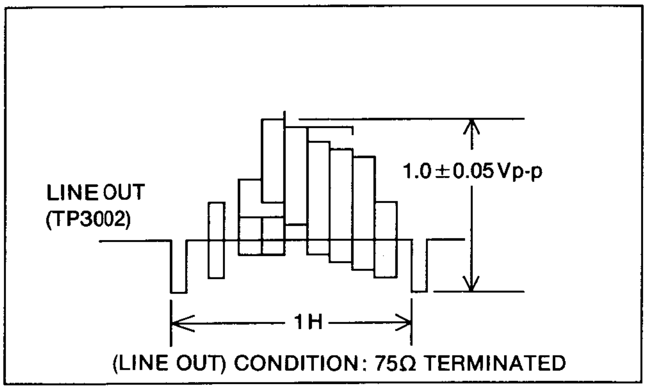


Figure E9

2-4-3. VIDEO LEVEL (2) ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT (TP3002)	VR3707 (SP) VR3706 (SLP)	STOP	VIDEO SIGNAL (COLOR BAR)
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE	1.0±0.05Vp-p	

1. Connect the oscilloscope to Video Line output (TP3002).
2. Adjust VR3707 so that the Video Level is 1.0 +– 0.05Vp–p in SP mode.
3. Adjust VR3706 so the Video level is 1.0 +– 0.05 Vp–p in SLP mode.

Note:
Prior to the above adjustment, the Video level (1) adjustment should be always completed.

2-4-4. Y-C SEPARATION (1) ADJUSTMENT

TP	ADJ.	MODE	INPUT
JS3701-⑥	VR3703 (PHASE) VR3704 (GAIN)	STOP	VIDEO SIGNAL (COLOR BAR)
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE	WAVEFORM IS MINIMIZED	

1. Connect the oscilloscope to JS3701–(6) on HQ PACK C.B.A. as shown below.

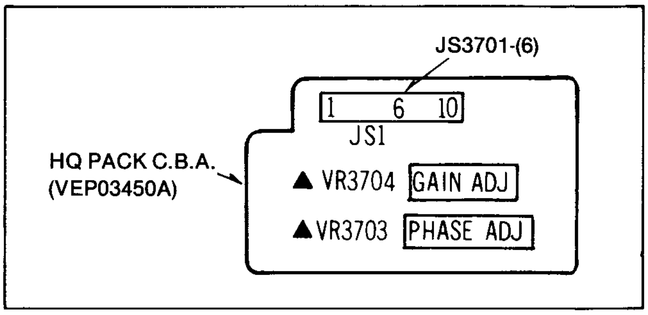


Figure E10

2. Adjust VR3703 and VR3704 repeatedly so that the chrominance component on luminance signal is minimized as shown below.

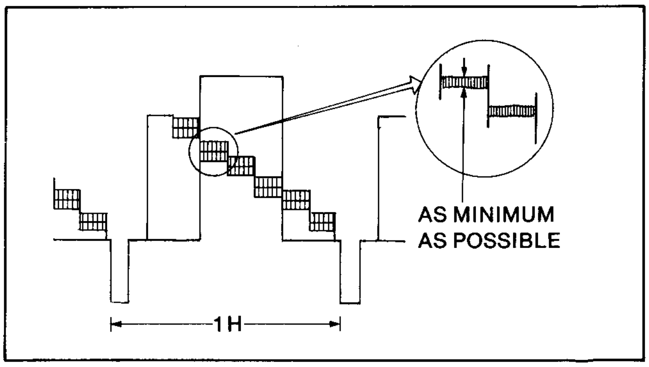


Figure E11

2-4-5. CHROMA RECURSIVE ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3701	VR3701 (PHASE) VR3702 (GAIN)	SELF RECORDING	VIDEO SIGNAL (COLORBAR)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	WAVEFORM IS MINIMIZED	

1. Record color bar signal then play back the just recorded portion.
2. Connect the oscilloscope to TP3701.
3. Adjust VR3701 and VR3702 repeatedly so that the waveform is minimized as shown below.

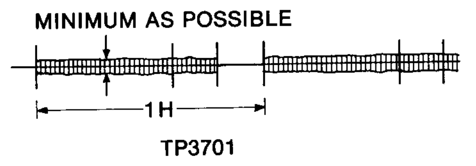


Figure E12

2-4-6. Y-C SEPARATION (2) ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3702	VR3705 (LINER) VR3801 (BALANCE)	STOP	VIDEO SIGNAL (COLOR BAR)
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE	MINIMUM AS POSSIBLE	

1. Connect the oscilloscope to TP3702.
2. Adjust VR3705 and VR3801 so that the luminance component on chrominance signal is minimized as shown below.

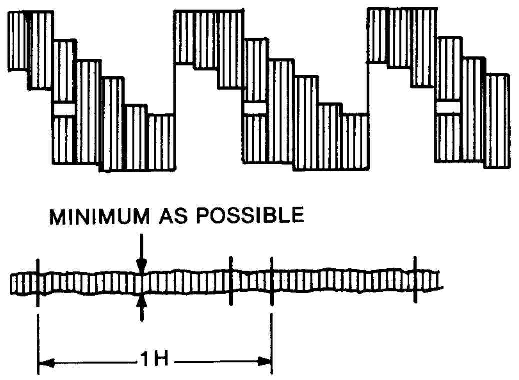


Figure E13

2-5. HD AUDIO SECTION

2-5-1. HD AUDIO EE LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT (L) or (R)	VR4901 (R) VR4902 (L)	STOP	1kHz, −10dB AUDIO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
	SIGNAL GENERATOR/ D.V.M.	−8±0.5dB	

1. Set the AUDIO REC VRs are center fix position.
2. Set the AUDIO SELECT BUTTON to "STEREO" mode.
3. Adjust VR4901 to -8 +– 0.5dB at LINE OUT–(R).
4. Adjust VR4902 to -8 +– 0.5dB at LINE OUT–(L).

2-5-2. HD AUDIO RECORDING CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4507 (HOT) TP4508 (GND)	VR4503	RECORDING	
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	240±5mVp-p	

1. Set the AUDIO SELECT BUTTON to "STEREO" mode.
2. Connect the OSCILLOSCOPE to TP4507(HOT) and TP4508(GND).
3. Adjust VR4503 so that the Audio recording current become 240 +– 5mVp–p as shown below.

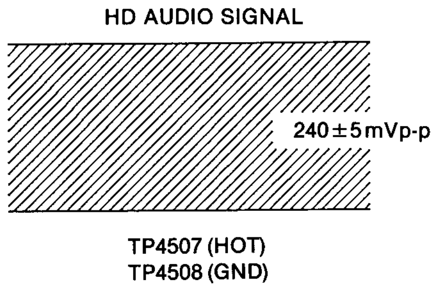


Figure E14

2-5-3. AUDIO HEAD SWITCHING SHIFTER ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4511	VR4510	PLAY	
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE VFM8080HMFP PORTION: ①	OSCILLO-SCOPE	$T=T2-\left(\frac{T2-T1}{2}\right)$ msec.	

1. Play back the alignment tape (VFM8080HMFP).
2. Connect the oscilloscope to TP4511.
3. Play back the just recorded portion.
4. Adjust VR4510 while listening to the stereo playback sound.
   (1).Confirm the "T2" time when the abnormal sound just occurs during turning clockwise on VR4510.
   (2).Confirm the "T1" time when the abnormal sound just occurs during turning counter clockwise on VR4510.
   (3).Adjust VR4510 so that the falling edge "T" of Audio H.SW pulse becomes the center portion of the both "T2" and "T1".

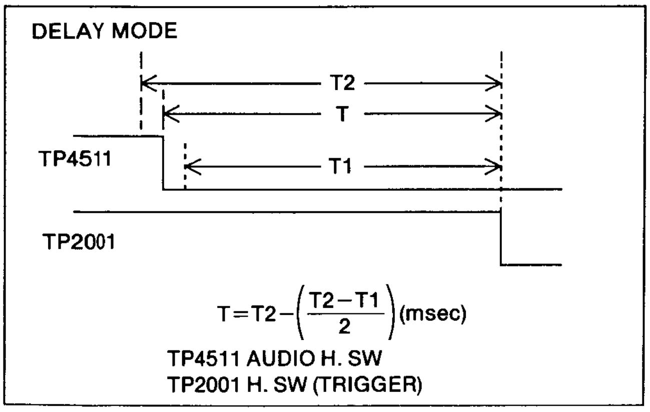


Figure E15

2-5-4. AUDIO MUTING ADJUSTMENT

TP	ADJ.	MODE	INPUT
	VR4505	SELF RECORDING	
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE			

1. Set the AUDIO SELECT BUTTON to "STEREO" position.
2. Set the AUDIO LEVEL METER SELECT SW to "Hi-Fi TRACKING" position.
3. Set the tracking VR so that the Audio Tracking level become maximum.
4. Preadjust VR4505 until the Hi-Fi indicator on the front panel display turns the NORMAL indication.
5. Then slowly adjust VR4505 where the STEREO indication just lights up.
6. Confirm that the abnormal sound does not contain in the playback Hi-Fi sound.

2-5-5. HD AUDIO CARRIER FREQUENCY ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4507 (HOT) TP4508 (GND)	VR4501 (L) VR4509 (R)	STOP	
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	1300±10kHz (L) 1700±10kHz (R)	

2-5-6. AUDIO DEVIATION ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC4502-⑤ (L) IC4502-㉖ (R)	VR4502 (L) VR4507 (R)	RECORDING	1kHz, −10dB (316mVp-p) AUDIO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	SIGNAL GENERATOR/ D.V.M.	280mVp-p	

1. Adjust VR4502 to 280mVp-p at IC4502-5 on HD AUDIO C.B.A. for L-Channel.
2. Adjust VR4507 to 280mVp-p at IC4502-26 on HD AUDIO C.B.A. for R-Channel.

2-5-7. HD AUDIO PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT (L) and (R)	VR4504 (L) VR4508 (R)	SELF RECORDING	1kHz, −10dB
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	V.T.V.M./ SIGNAL GENERATOR	−8.0±1dB	

1. Set the AUDIO REC VRs are center fix position.
2. Set the AUDIO SELECT BUTTON to "STEREO" mode.
3. Play back the just recorded portion.
4. Adjust volumes (VR4504, VR4508) so that the level of the playback outputs are -8.0 +- 1dB.

2-5-8. LEVEL METER SENSITIVITY ADJUSTMENT

TP	ADJ.	MODE	INPUT
	VR4004 (L) VR4003 (R)	STOP	1kHz, −10.5dB
TAPE	**M. EQ.**	**SPEC.**	
	SIGNAL GENERATOR		

1. Set the AUDIO SELECT BUTTON to the "STEREO" position.
2. Set the output of SIGNAL GENERATOR to 1KHz and 10.5dB and supply it to both Input Jacks (L) and (R).
3. Set the AUDIO REC VRs are center fix position.
4. Adjust VR4004 so that the 0dB indicator just lights up on the L–ch level meter as shown below.
5. Adjust VR4003 so that the 0dB indicator just lights up on the R–ch level meter as shown below.

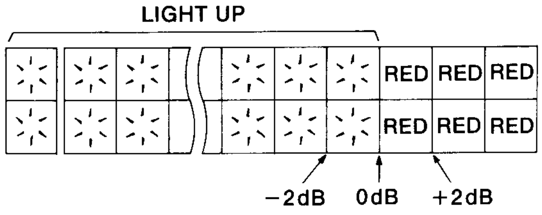


Figure E16

2-6. NORMAL AUDIO SECTION

2-6-1. AUDIO BIAS CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4002 (HOT) TP4003 (GND)	VR4002	RECORDING	
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	V.T.V.M.	2.65±0.1mVrms	

2-6-2. AUDIO PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
AUDIO OUT (TP4001)	VR4001	SELF RECORDING	1kHz, −10dB AUDIO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	SIGNAL GENERATOR/ V.T.V.M.	EE level + −1dB	

1. Set the AUDIO PLAYBACK MODE SELECTOR to NORMAL position.
2. Playback the just recorded portion.
3. Adjust VR4001 so that the level of the playback waveform becomes E–E level +–1dB.

Note:
1. Before this adjustment, "Tape Interchange–ability Adjustment" and "Audio Bias Current Adjustment" must be completed.
2. Video signal must be connected to video input.

2-7. DIGITAL SECTION

2-7-1. DIGITAL INPUT LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3203	VR3205	STOP	VIDEO SIGNAL (COLOR BAR)
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE	0.8±0.05Vp-p	

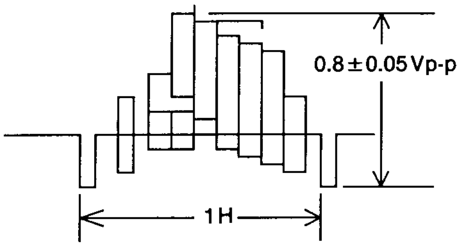


Figure E17

Note:
Prior to the above adjustment, the video level adjustment should be always completed.

2-7-2. COMB FILTER RESPONSE ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3203	VR3203	STOP	VIDEO SWEEP (MULTI BURST)
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE/ VIDEO SWEEP	3.58MHz BURST IS MINIMUM AS POSSIBLE	

1. Set the video sweep generator output as shown below.

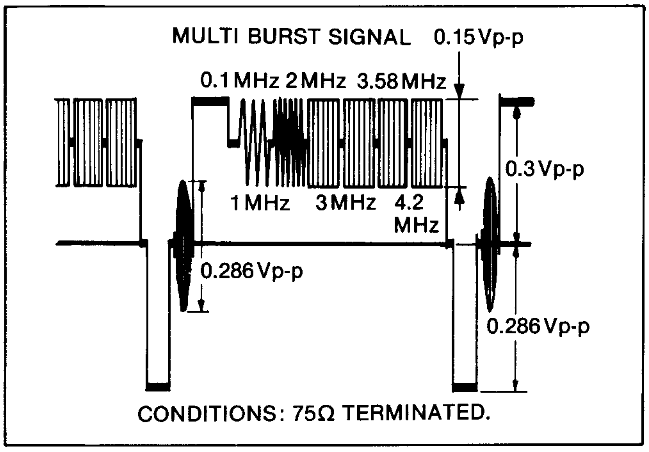

MULTI BURST SIGNAL
0.15Vp-p
0.1MHz 2MHz 3.58MHz
1MHz 3MHz 4.2 MHz
0.3Vp-p
0.286Vp-p
0.286Vp-p
CONDITIONS: 75Ω TERMINATED.

Figure E18

2. Supply the multi burst signal from video sweep to Video Input Jack.
3. Adjust VR3203 so that the 3.58MHz burst signal is minimized as shown below.

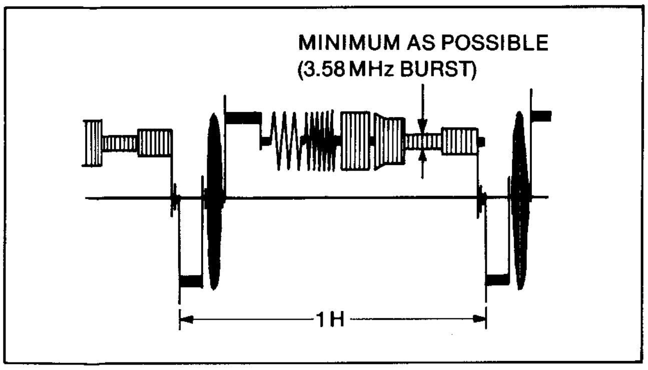

MINIMUM AS POSSIBLE
(3.58MHz BURST)
1H

Figure E19

2-7-3. DIGITAL INPUT CHROMA LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3203	VR3204	STOP	VIDEO SWEEP (MULTI BURST)
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE/ VIDEO SWEEP		

1. Set the Video Sweep generator output as shown below.

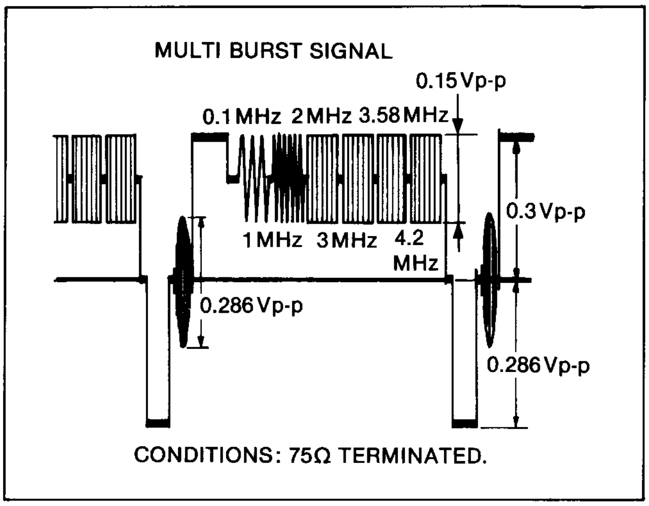

MULTI BURST SIGNAL
0.15Vp-p
0.1MHz 2MHz 3.58MHz
1MHz 3MHz 4.2 MHz
0.3Vp-p
0.286Vp-p
0.286Vp-p
CONDITIONS: 75Ω TERMINATED.

Figure E20

2. Supply the multi burst signal from video sweep to Video Input Jack.
3. Adjust VR3204 so that the lower edge of burst is the same level as H–Sync signal as shown below.

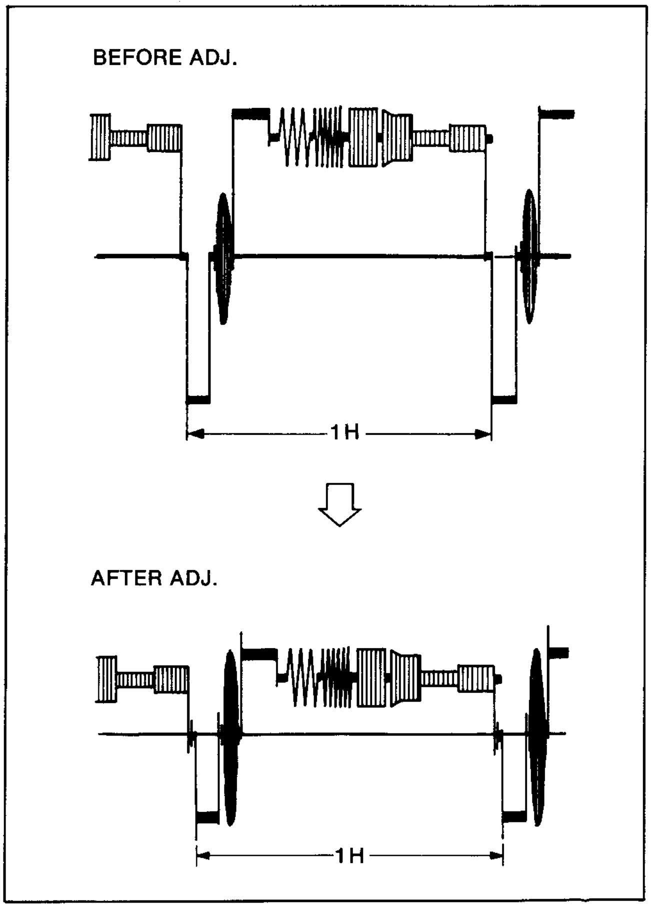

BEFORE ADJ.
1H
AFTER ADJ.
1H

Figure E21

2-7-4. DIGITAL OUTPUT LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT (TP3002)	VR3206	DIGITAL STILL	VIDEO SIGNAL (COLOR BAR)
TAPE	**M. EQ.**	**SPEC.**	
BLANK	OSCILLO-SCOPE	1.0±0.05Vp-p	

1. Place the unit in Digital Still mode by using Programmable Remote Control Unit.
2. Connect the Oscilloscope to Video Line Output (TP3002).
3. Adjust VR3206 to 1.0 +– 0.05Vp–p.

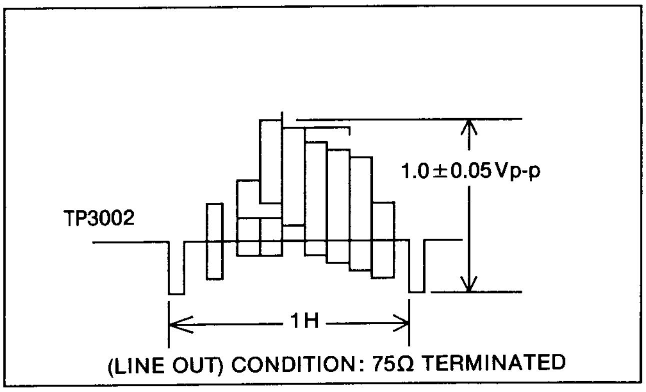


Figure E22

2-7-5. HD PULSE WIDTH ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3201	VR3201	STOP	VIDEO SIGNAL (COLOR BAR)
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE	T=4.5±0.1μsec.	

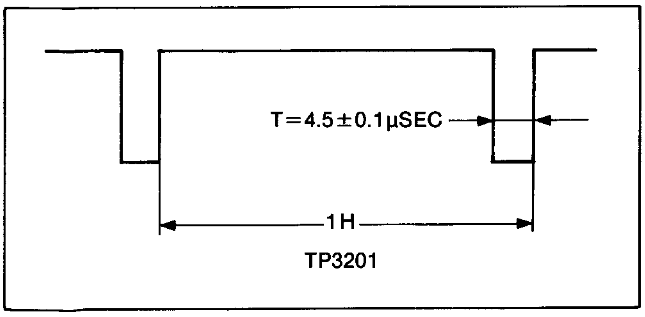


Figure E23

2-7-6. AFC FREE RUN ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3202	VR3202	STOP	
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	16.0±0.1kHz	

1. Connect the jumper wire between TP3201 and GND.
2. Connect the Frequency counter to TP3202.
3. Adjust VR3202 so that the reading of frequency counter is 16.0 +– 0.1KHz.

2-7-7. COLOR PHASE ON SMALL PICTURE ADJUSTMENT

TP	ADJ.	MODE	INPUT
TV MONITOR	VR9001	PLAY→ 2-SCREEN	RF COLOR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	TV MONITOR	TRUE COLOR	

1. Record video signal and play back the just recorded portion.
2. Place the unit in 2–screen mode by using Programmable Remote Control Unit as shown below.

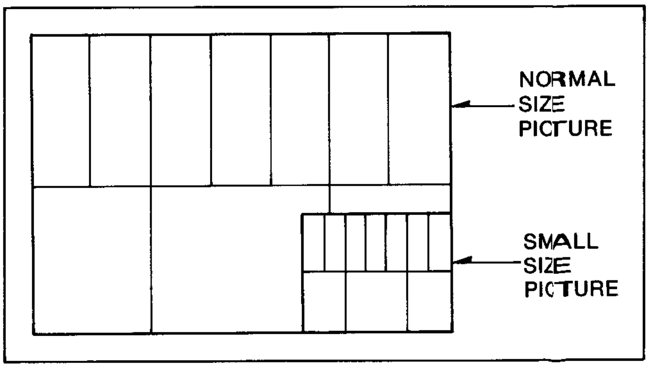


Figure E24

3. Adjust VR9001 so that the small size of monitoring picture is the same color phase as the normal size of monitoring picture.

2-7-8. DIGITAL CONTROL FREQUENCY ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP9001	C9035	STOP	
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	3579545±30Hz	

2-8. TIMER SECTION

2-8-1. TIMER CLOCK ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC7501-37	C7502		
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	3906.25±0.008μsec.	

1. Disconnect the AC power plug.
2. Set the voltage of the DC power supply for 5.8V +– 0.1V and supply it to P7506 (+) and GND (–).
3. Connect a jumper wire between P7506–5 and GND.
4. Connect the frequency counter to IC7501–37.
5. Adjust C7502 of 3906.25us +– 0.008us.

NOTE :
When checking or replacing the Timer circuit,the following steps should be followed to protect this circuit.

(1) Disconnect the AC power plug.
(2) Make a short circuit at C7571 by connecting a wire to both lead wires of the C7571.
(3) Check or replace the parts.
(4) After checking or replaceing the parts,remove the short circuit from C7571.

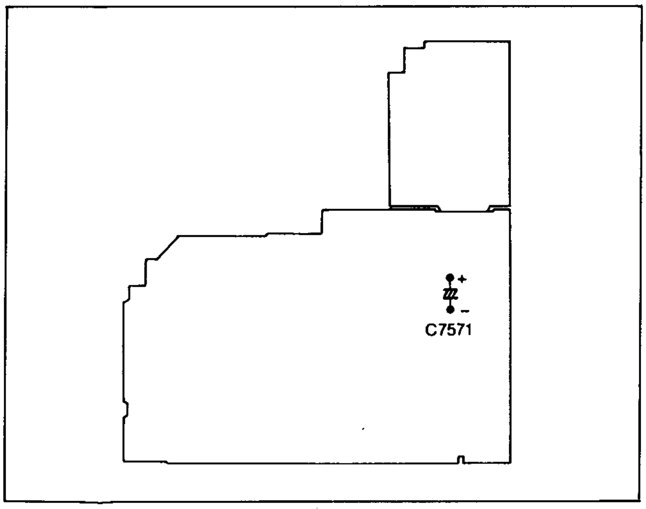


Figure. E25

2-9. TV DEMODULATOR SECTION

2-9-1. TEST EQUIPMENT

To make adjustment completely, following equipments are required.

1. VIF SWEEP GENERATOR with the Trap Adjustor 45.75MHz
2. SIF SWEEP GENERATOR ....4.5MHz +– 90KHz
3. CW OSCILLATOR ....45.75MHz +– 100KHz
4. MONITOR SCOPE
5. OSCILLOSCOPE
6. DIGITAL VOLT METER
7. TUNING AMPLIFIER
8. MULTI VOICE MODULATOR (M.V.M)

Note:
1) Demodulator Unit Setting
To make this adjustment, set the Demodulator Unit as follows.
First, remove the Demodulator Unit (Tuner, RF Converter, TV Demodulator C.B.A and Tuner ARU C.B.A) from the Main C.B.A. Then, connect the TV Demodulator Pack pin to solder the same portions of the Main C.B.A by lead jumper.
2) AFC ON–OFF
When you make AFC ON or OFF condition, set the VTR as follows.
(1) Press the PRESET/NORMAL button.
The indication on the Multi–Function Display changes from the clock indication to the position indication.
(2) Press the Channel Up or Down button to select a programme position (channel) which you want to tune to a TV station.
(3) Press the BAND/AFC button to select the "L", "H" or "U" position.

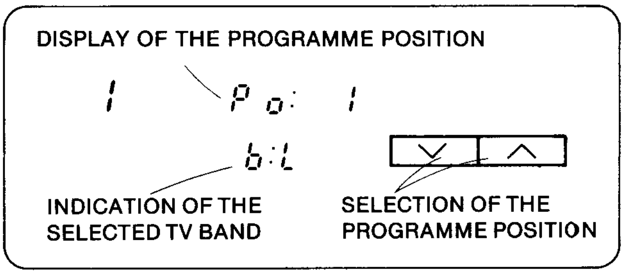

DISPLAY OF THE PROGRAMME POSITION
1 P o: 1
b: L
INDICATION OF THE SELECTED TV BAND
SELECTION OF THE PROGRAMME POSITION

Figure E26

(4) Press the SEARCH (+) or (–) button until the picture of the desired station on your TV is satisfactory.
* If the Search (+) or (–) button is pressed while pressing the Quick Button, the stations will change quickly.

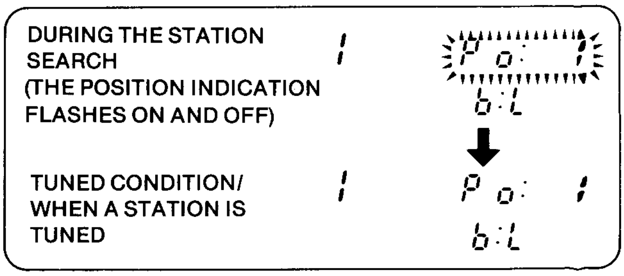

DURING THE STATION SEARCH (THE POSITION INDICATION FLASHES ON AND OFF)
1 P o: 1
b: L
TUNED CONDITION/ WHEN A STATION IS TUNED
1 P o: 1
b: L

Figure E27

(5) Press the PRESET/NORMAL button again.
The indication on the Multi–Function Display changes to the clock indication.
Now AFC is "ON" condition.
(6) Press the FINE TUNING (+) or (–) button in a moment.
Now AFC is "OFF" condition.
(7) Press the BAND/AFC button.
Now AFC if "ON" condition again.

2-9-2. VIF SWEEP ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP707	T703, TUNER CONVERTER COIL		VIF SWEEP
TAPE	**M. EQ.**	**SPEC.**	
	VIF SWEEP/ MONITOR SCOPE	REFER TO VIF SPECIFICATION CHART (FIGUR E32)	

1. Set the BAND SW for VHF high position (VH) and set the DC power supply for 20V and supply it to BT Terminal of the Tuner after removing TV Demodulator C.B.A −(9) to cut off the BT voltage from IC7551−(2).
2. Set the AFC OFF condition.
3. Connect a jumper wire between AGC Terminal of the Tuner and GND.
4. Connect a capasitor (50V/1 uF) between TP703 and GND.
5. Connect the VIF sweep generator to the Tuner Test Point and connect the monitor scope to TP707 as shown in Figure E28.
(Marker Frequencys of VIF Sweep waveform are shown in Figure E29).

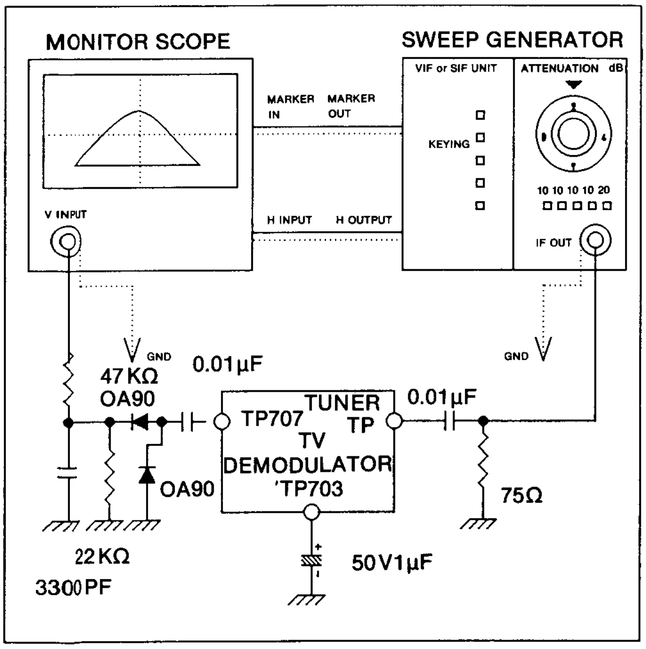

MONITOR SCOPE
SWEEP GENERATOR
VIF or SIF UNIT
ATTENUATION dB
MARKER IN
MARKER OUT
KEYING
10 10 10 10 20
V INPUT
H INPUT
H OUTPUT
IF OUT
GND
GND
47KΩ
OA90
0.01μF
TP707
TUNER TP
TV DEMODULATOR
TP703
0.01μF
OA90
75Ω
22KΩ
3300PF
50V1μF

Figure E28

		FREQUENCY
MARKER	fc	42.17MHz
	f1	42.75MHz
	f0	43.875MHz
	f2	45.00MHz
	fp	45.75MHz

Figure E29

6. Adjust T703 so that the VCO beat is placed to center of P1 and P2 mackers on the output waveform as shown in Figure E30.

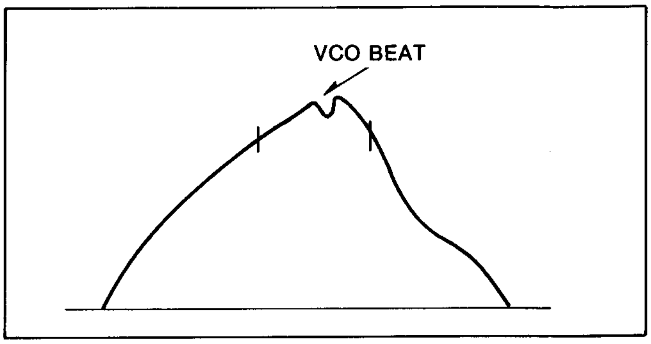


Figure E30

7. Adjust the VIF sweep generator so that the output swweep waveform level becomes 0.3Vp−p on the monitor scope.
Then release the attenuator of the VIF sweep generator for 20dB.
8. Connect the Adjustment Jig as shown in Figure E31, then adjust VR of Adjustment Jig so that the output sweep waveform level becomes 0.3Vp−p on the monitor scope.

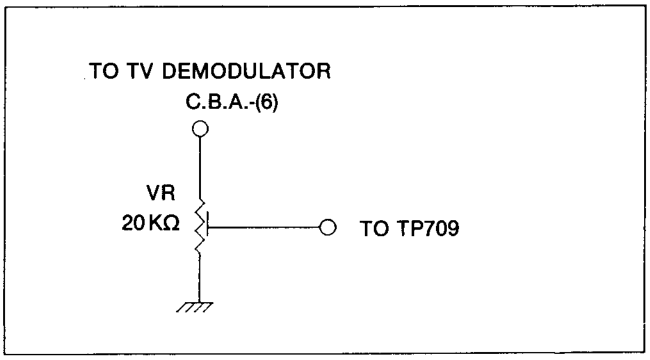

TO TV DEMODULATOR
C.B.A.-(6)
VR
20KΩ
TO TP709

Figure E31

9. Adjust the Tuner Converter Coil so that the waveform becomes as follows.

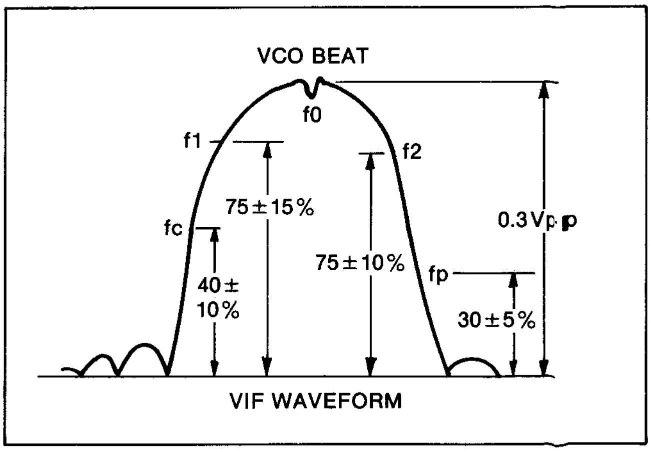

VCO BEAT
f0
f1
f2
fc
fp
75±15%
75±10%
40±
10%
30±5%
0.3Vp-p
VIF WAVEFORM

Figure E32

2-9-3. VCO ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP704	T703		
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER/ TUNING AMPLIFIER	45.75kHz	

1. Connect a Resistor (1Kohm) between TP709 and GND.
2. Connect the frequency counter to TP704 through the turning amplifier.
3. Adjust T703 so that the reading of frequency counter is 45.75KHz +− 10KHz.

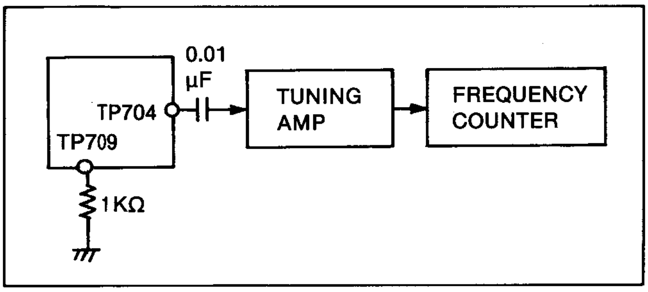

0.01 μF
TP704
TP709
1KΩ
TUNING AMP
FREQUENCY COUNTER

Figure E33

2-9-4. AFC ADJUSTMENT

TP	ADJ.	MODE	INPUT
AFC TERMINAL OF THE TUNER	T704		CW SIGNAL (1Vrms)
TAPE	**M. EQ.**	**SPEC.**	
	SW OSCILLATOR/ D.V.M.		

1. Set the BAND SW for the VHF high position (VH) and set the DC power supply for 20 +− 1V and supply it to BT Terminal of the Tuner after removing TV Demodulator C.B.A−(9) to cut of the BT voltage from IC7551−(2).
2. Set the CW oscillator output for "A" MHz and 1Vrms. Connect the CW osillator output to the Tuner Test Point.
3. Connect the D.V.M. to the AFC terminal of the tuner.
4. Read the value "B" of the D.V.M., when the AFC is OFF condition.
5. Set the AFC ON condition and adjust T704 for "B" +− 0.3V.
6. Change the frequency of the CW osillator to "A" (MHz) +− 100KHz, and confirm the difference of the AFC voltage is more than +−2V.

2-9-5. SIF SWEEP ADJUSTMENT

TP	ADJ.	MODE	INPUT
VR751-HOT	T711		SIF SWEEP
TAPE	**M. EQ.**	**SPEC.**	
	VIF SWEEP/ MONITOR SCOPE	A=4.5MHz	

1. Set the DC power supply for 20 +− 1V and supply it to BT Terminal of the Tuner after removing TV Demodulator C.B.A−(9) to cut of the BT voltage from IC7551−(2).
2. Set the AFC OFF condition.
3. Connect the SIF sweep generator to TP706 and connect the monitor scope to TV Demodulator C.B.A−(15) as shown in Figure E33.

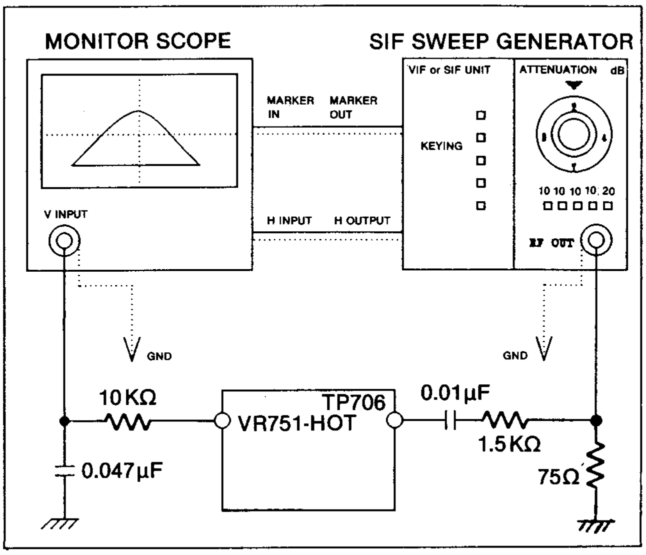

MONITOR SCOPE
SIF SWEEP GENERATOR
VIF or SIF UNIT
ATTENUATION dB
MARKER IN
MARKER OUT
KEYING
10 10 10 10 20
V INPUT
H INPUT
H OUTPUT
RF OUT
GND
GND
10KΩ
TP706
VR751-HOT
0.01μF
1.5KΩ
0.047μF
75Ω

Figure E34

4. Connect the Jig to both points TP709 and TV Demodulator C.B.A−(6). (Refer to Figure E31). Adjust the VR of the Jig so that the DC level becomes less than 3V.
5. Set the output of SIF sweep generator for 250mVrms at no load.
6. Adjust T711 so that the attenuation of (A) trap becomes minimum.
   And adjust for maximum peak−to−peak amplitude of response "S" curve as shown in Figure E35.

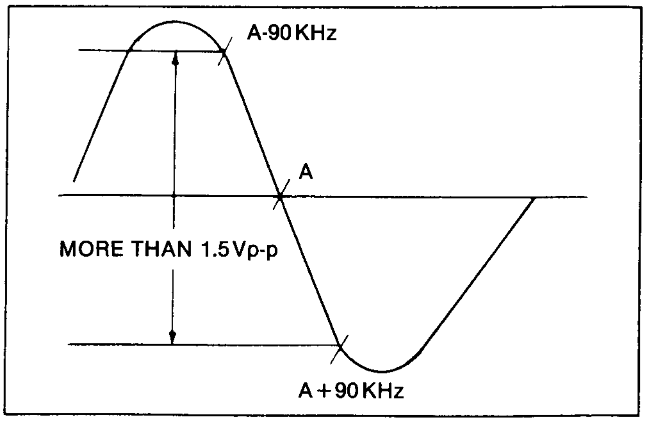


Figure E35

7. Confirm that the level between (A) +– 90KHz marker position is more that 1.5Vp–p.

2-9-6. VIDEO FREQUENCY RESPONCE ADJUSTMENT

TP	ADJ.	MODE	INPUT
TV DEMODU-LATOR C.B.A.-(13)	VR741		VIDEO SWEEP V. MOD: 70%, 75dBμ
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE/ VIDEO SWEEP/ M.V.M.		

1. Supply a video sweep signal from the Video sweep generator to the input of the M.V.M.
2. Connect the output of the M.V.M to RF Input of the Deck.
3. Press the SEARCH (+) or (–) button so that the modulated RF signal of the channel 12 is able to receive.
4. Set the AFC ON condition.
5. Adjust VR741 so that the waveform at the Video out (TV Demodulator C.B.A–(13)) becomes as shown in Figure E36.

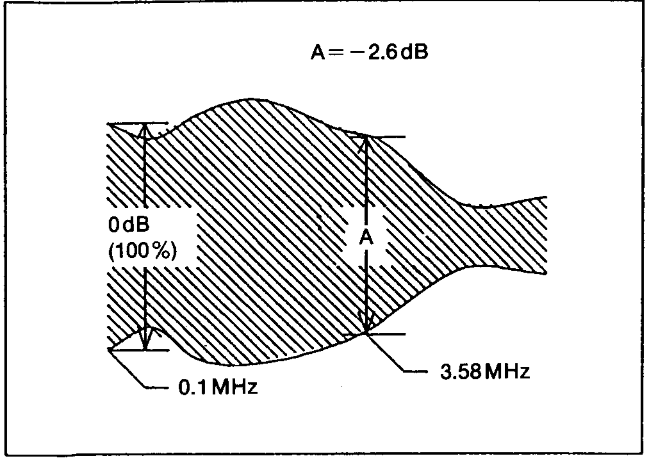


Figure E36

2-9-7. AUDIO LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
AUDIO OUT(TV DEMODU-LATOR C.B.A.-(15))	VR751		VIDEO COLOR BAR, V. MODU: 87.5%, 75dBμ, AUDIO 400Hz A. MODU: 100% (7.5kHz DEV.)
TAPE	**M. EQ.**	**SPEC.**	
	RC OSC/ OSCILLO-SCOPE or D.V.M./M.V.M./ PATTERN GENERATOR	120±6mVp-p	

1. Supply a video signal (COLOUR BAR pattern) from the pattern generator and 400Hz sine wave from RC oscillator to the input of the M.V.M.
2. Connect the output of the M.V.M to RF Input of the Deck.
3. Press the SEARCH (+) or (–) button so that the modulated RF signal on the channel 12 is able to receive.
4. Set the AFC ON condition.
5. Connect the oscilloscope or D.V.M to TV Demodulator C.B.A–(15).
6. Adjust VR751 so that the audio level becomes 120 +– 6mVp–p.

2-9-8. AUDIO MUTING FREQUENCY ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC7651-④	VR7660		
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	15735±100Hz	

Note:
To make this adjustment, please prepare the following circuit as shown in Figure E37.

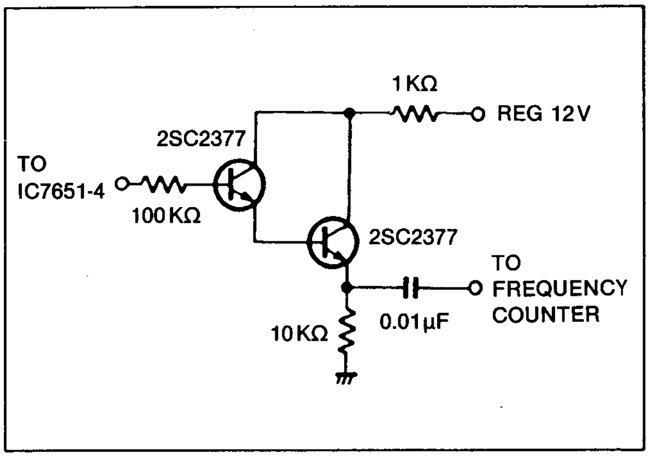


Figure E37

2-10. DECODER SECTION

2-10-1. TEST EQUIPMENTS

To make adjustment completely, follwing equipments are required.

1. MTS/SAP Signal Generator
   (TV Multi Channel Sound Modulator)
2. Signal Generator (Sinewave)
   Frequency Range : 0~10MHz
3. V.T.V.M (Vacuum Tube Volt Meter) or D.V.M
   (Digital Volt Meter)
   Voltage Range : 0.001~50V

2-10-2. OUTPUT LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP7901	VR7303		AUDIO 300Hz A. MODU: 100% (7.5kHz DEV.)
TAPE	**M. EQ.**	**SPEC.**	
	SIGNAL GENERATOR/ V.T.V.M.	220±6mVrms	

1. Set the SIGNAL GENERATOR for 300Hz, 100mVrms and supply it to P7304–(1) after cutting TV Demodulator signal.
2. Connect the V.T.V.M to TP7901.
3. Adjust VR7303 for 220 +– 6mVrms.

2-10-3. OUTPUT LEVEL ADJUSTMENT (NORMAL)

TP	ADJ.	MODE	INPUT
TP7903	VR7901		AUDIO 300Hz A. MODU: 100% (7.5kHz DEV)
TAPE	**M. EQ.**	**SPEC.**	
	SIGNAL GENERATOR/ V.T.V.M.	140±4mVrms	

1. Set the SIGNAL GENERATOR for 300Hz, 100mVrms and supply it to P7304–(1) after cutting TV Demodulator signal.
2. Connect the V.T.V.M to TP7903.
3. Adjust VR7901 for 140 +– 4mVrms.

2-10-4. STEREO PLL ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP7303 (HOT) TP7304 (GND)	VR7305		
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	62.936kHz±800Hz	

1. Connect the FREQUENCY COUNTER to TP7303 (HOT) and TP7304 (GND) through the filter circuit as shown below.

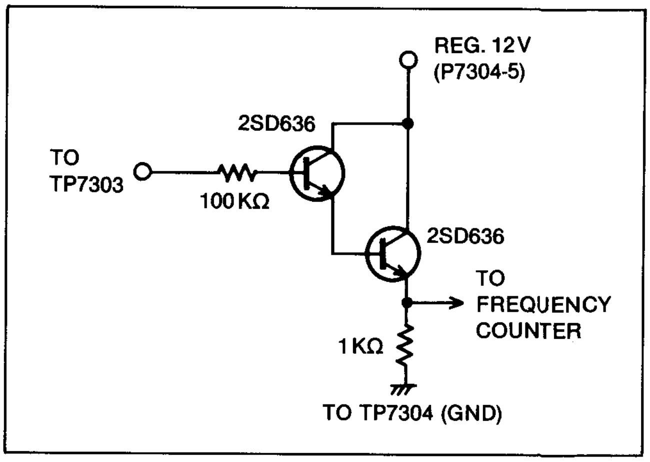


Figure E38

2. Adjust VR7305 so that the reading of the FREQUENCY COUNTER is 62.936KHz +– 800Hz.

2-10-5. MTS NOISE REDUCTION ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP7311 (+) TP7308 (+) TP7312 (–)	VR7302 VR7311		AUDIO 300Hz A. MODU: 28% (7.5kHz DEV.) MTS (L-CH)
TAPE	**M. EQ.**	**SPEC.**	
	MTS/SAP SIGNAL GENERATOR/ V.T.V.M.	28.3±2mVrms (VR7302) 15.0±0.3mV (VR7311)	

1. Set the MTS/SAP SIGNAL GENERATOR for MTS (L–CH) mode, 300Hz, Modulation degree 28% by turning off the pilot switch and N.R. switch, then turn them on, and supply this signal to P7304–(1) after cutting TV Demodulator signal.
2. Connect the V.T.V.M to TP7311.
3. Adjust VR7302 for 28.3 +– 2mVrms.
4. Next, re-connect the V.T.V.M to TP7308 (+) and TP7312 (–).
5. Adjust VR7311 so that the reading of V.T.V.M is 15.0 +– 0.3mV (at DC Range).

2-10-6. STEREO SEPARATION ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP7902	VR7310 VR7309		AUDIO 300 Hz A. MODU: 28% (7.5kHz DEV.) MTS (LCH) AUDIO 300 Hz A. MODU: 7.6% (7.5kHz DEV.) MTS (LCH)
TAPE	**M. EQ.**	**SPEC.**	
	MTS/SAP SIGNAL GENERATOR/ V.T.V.M.	MINIMUM AS POSSIBLE	

1. Set the MTS/SAP SIGNAL GENERATOR for MTS (L−CH) mode, 300Hz, Modulation degree 28% by turning off the pilot switch and N.R. switch, then turn them on, and supply this signal to P7304−(1) after cutting TV Demodulator signal.
2. Connect the V.T.V.M to TP7902.
3. Adjust VR7310 so that the reading of V.T.V.M is minimum as possible.
4. Next, re−set the MTS/SAP SIGNAL GENERATOR to MTS (L−CH) mode, 8KHz, modulation degree 7.6% by turning off the pilot switch and N.R. switch, then turn them on.
5. Adjust VR7309 so the reading of V.T.V.M is minimum as possible.

2-10-7. SAP INPUT LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP7311	VR7304		AUDIO 300 Hz A. MODU: 14.1% (7.5kHz DEV.) SAP (MONO)
TAPE	**M. EQ.**	**SPEC.**	
	V.T.V.M/ MTS/SAP SIGNAL GENERATOR	28.3±2mVrms	

1. Set the MTS/SAP SIGNAL GENERATOR for SAP (MONO/SAP) mode, 300Hz, Modulation degree 14.1% by turning off the pilot switch and N.R. switch, then turn them on, and supply this signal to P7304−(1) after cutting TV Demodulator signal.
2. Connect the V.T.V.M to TP7311.
3. Adjust VR73045 for 28.3 +− 2mVrms.

2-10-8. SAP NORMAL OUTPUT LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP7903	VR7902		AUDIO 300 Hz A. MODU: 14.1% (7.5kHz DEV.) SAP (MONO)
TAPE	**M. EQ.**	**SPEC.**	
	V.T.V.M/ MTS/SAP SIGNAL GENERATOR	19.7±0.6mVrms	

1. Set the MTS/SAP SIGNAL GENERATOR for SAP (MONO/SAP) mode, 300Hz, Modulation degree 14.1% by turning off the pilot switch and N.R. switch, then turn them on, supply this signal to P7304−(1) after cutting TV Demodualtor signal.
2. Connect the V.T.V.M to TP7903.
3. Adjust VR7902 for 19.7 +− 0.6mVrms.

2-11. OSD SECTION

2-11-1. H-SYNC FREQUENCY ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC7705-7	VR7701		
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	15735±25Hz	

1. Connect a jumper wire between P7702−11 and GND.
2. Connect the FREQUENCY COUNTER to IC7705−7 through the AMP circuit as shown below.

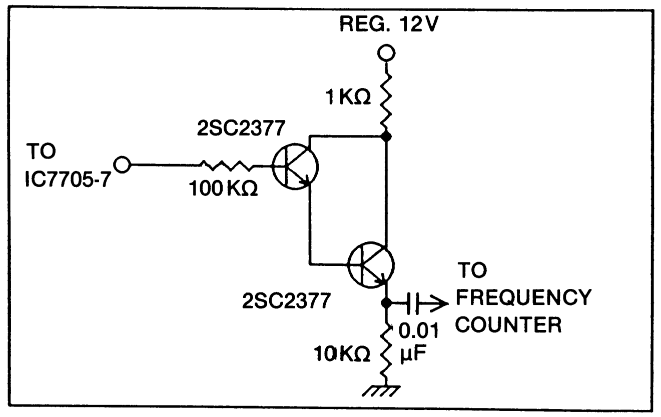

REG. 12V
1KΩ
2SC2377
TO IC7705-7
100KΩ
2SC2377
TO FREQUENCY COUNTER
0.01 µF
10KΩ

Figure E39

3. Adjust VR7701 so that the reading of the FREQUENCY COUNTER is 15735+−25Hz.

2-11-2. OSD POSITION ADJUSTMENT

TP	ADJ.	MODE	INPUT
TV MONITOR	C7713		
TAPE	**M. EQ.**	**SPEC.**	
	TV MONITOR	"CLOCK" indication is nearly center position	

1. Press the OSD Button twice to display the time information on the TV MONITOR.
2. Adjust C7713 so that the "CLOCK" indication is nearly center position on the TV MONITOR as shown below.

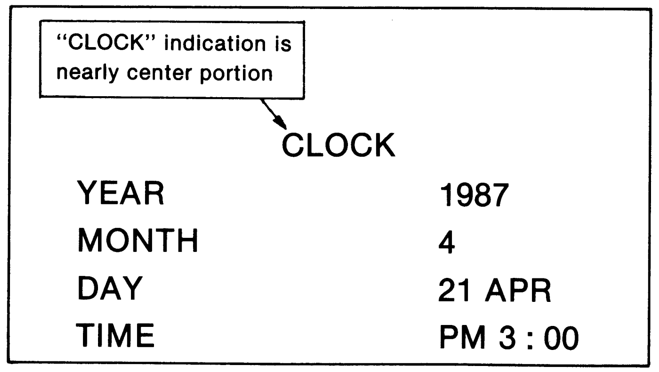
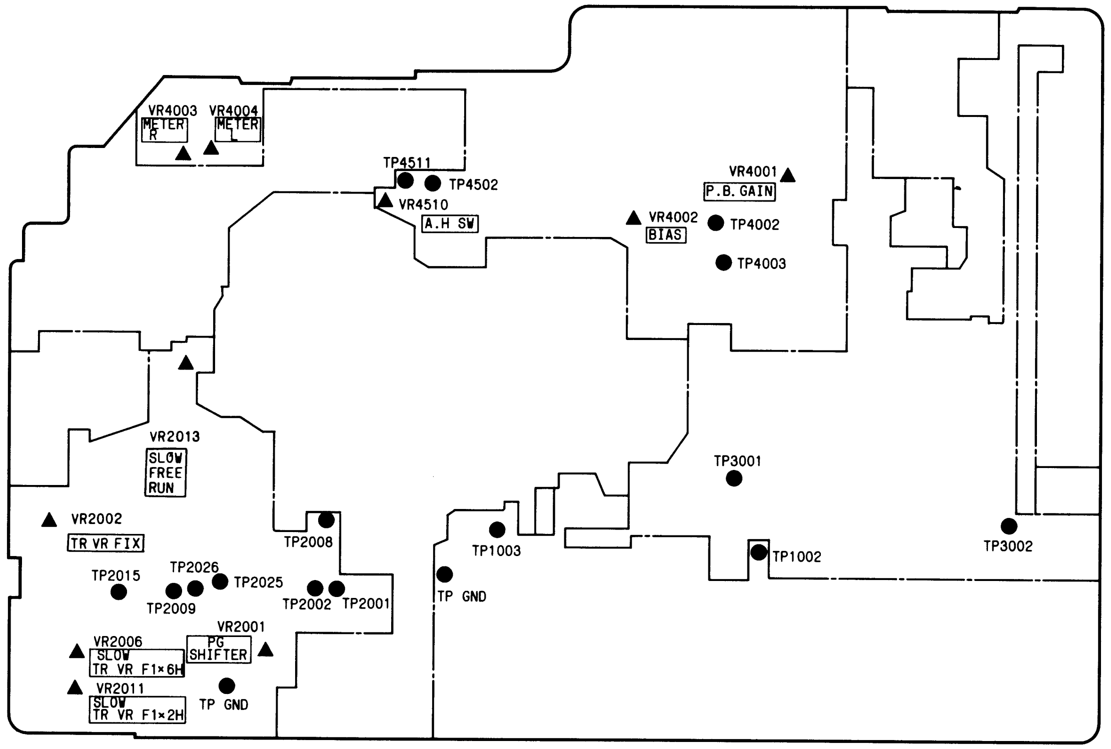

"CLOCK" indication is nearly center portion
CLOCK
YEAR 1987
MONTH 4
DAY 21 APR
TIME PM 3 : 00

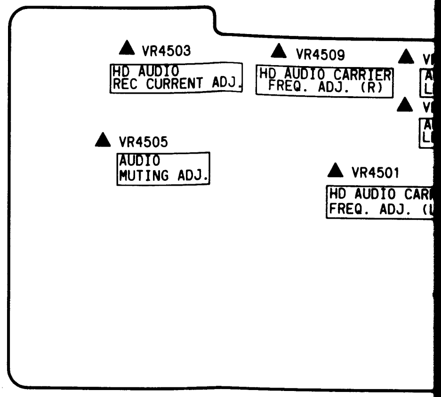
Figure E40

LOCATION OF TEST POINTS & CONTROLS

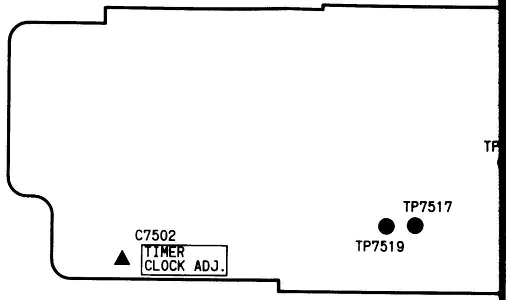
MAIN C.B.A. (VEP03448A)


VR4003 METER R
VR4004 METER L
TP4511
TP4502
VR4510 A.H SW
VR4001 P.B. GAIN
VR4002 BIAS
TP4002
TP4003
VR2013 SLOW FREE RUN
VR2002 TR VR FIX
TP2008
TP2015
TP2026
TP2025
TP2009
TP2002
TP2001
VR2001 PG SHIFTER
VR2006 SLOW TR VR F1×6H
VR2011 SLOW TR VR F1×2H
TP GND
TP1003
TP GND
TP3001
TP1002
TP3002

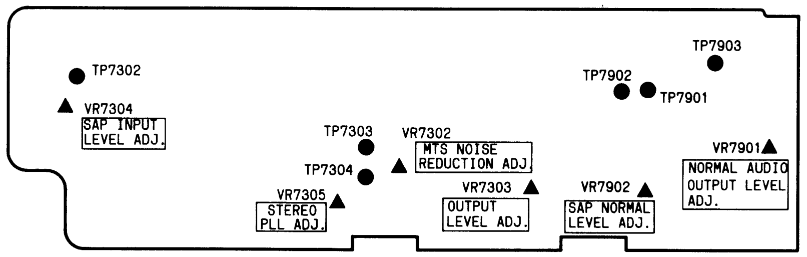
HD AUDIO C.B.A. (VEP04200A)


VR4503 HD AUDIO REC CURRENT ADJ.
VR4509 HD AUDIO CARRIER FREQ. ADJ. (R)
VR4505 AUDIO MUTING ADJ.
VR4501 HD AUDIO CAR FREQ. ADJ. (L

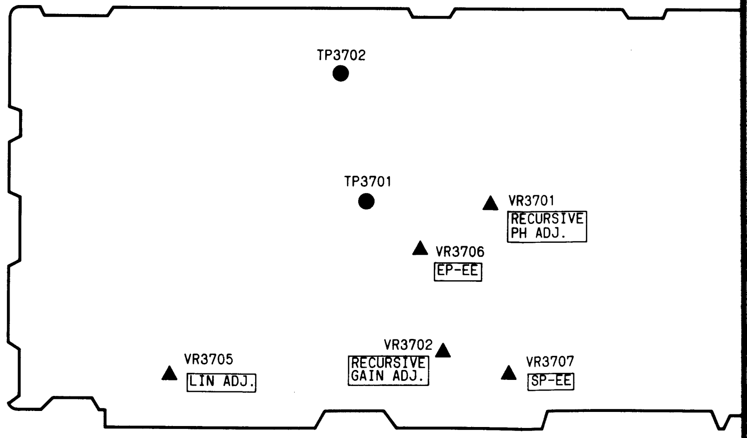
TIMER C.B.A. (VEP07391A)


C7502 TIMER CLOCK ADJ.
TP7517
TP7519

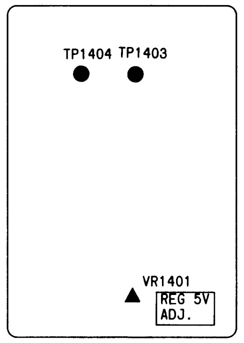
DECODER C.B.A. (VEP07399A)


TP7302
VR7304 SAP INPUT LEVEL ADJ.
TP7303
TP7304
VR7302 MTS NOISE REDUCTION ADJ.
VR7305 STEREO PLL ADJ.
VR7303 OUTPUT LEVEL ADJ.
TP7903
TP7902
TP7901
VR7902 SAP NORMAL LEVEL ADJ.
VR7901 NORMAL AUDIO OUTPUT LEVEL ADJ.

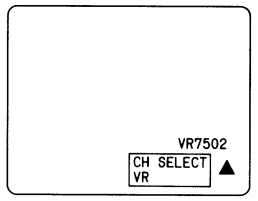
HQ PACK C.B.A. (VEP03450A)


TP3702
TP3701
VR3701 RECURSIVE PH ADJ.
VR3706 EP-EE
VR3705 LIN ADJ.
VR3702 RECURSIVE GAIN ADJ.
VR3707 SP-EE

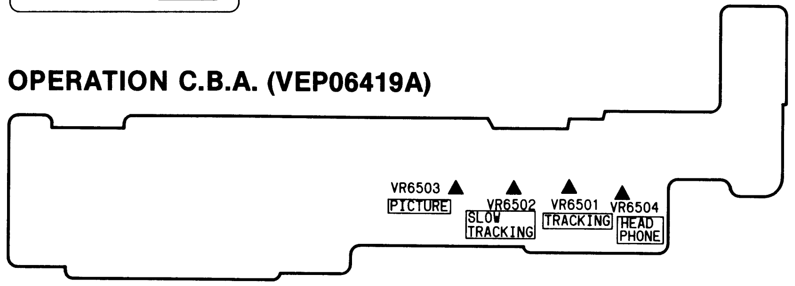
SUB POWER (II) C.B.A. (VEP01288A)


TP1404
TP1403
VR1401 REG 5V ADJ.

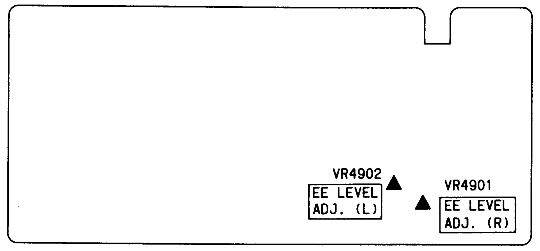
CH SELECT PACK C.B.A. (VEP07366A)


VR7502 CH SELECT VR

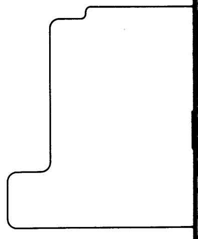
OPERATION C.B.A. (VEP06419A)


VR6503 PICTURE
VR6502 SLOW TRACKING
VR6501 TRACKING
VR6504 HEAD PHONE

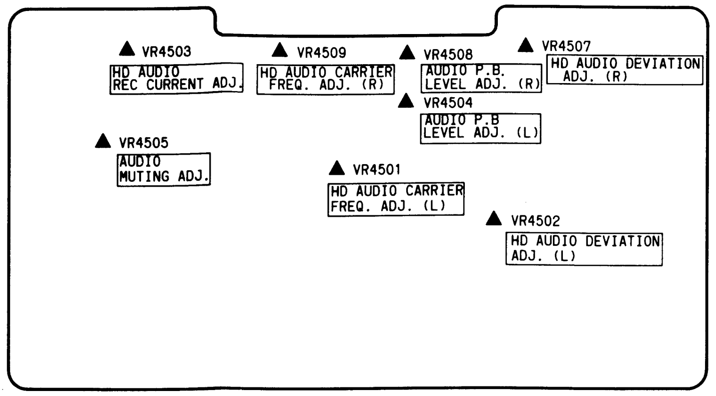
INPUT/OUTPUT PACK C.B.A. (VEP04201A)


VR4902 EE LEVEL ADJ. (L)
VR4901 EE LEVEL ADJ. (R)

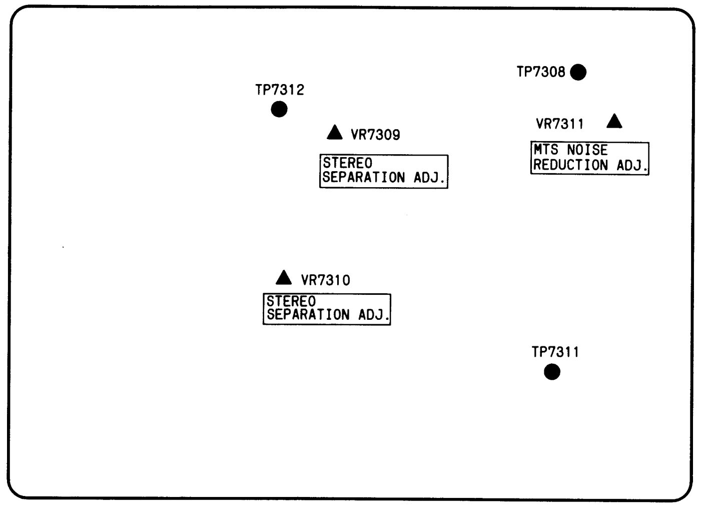
CCD PACK C. (VEP03449A)



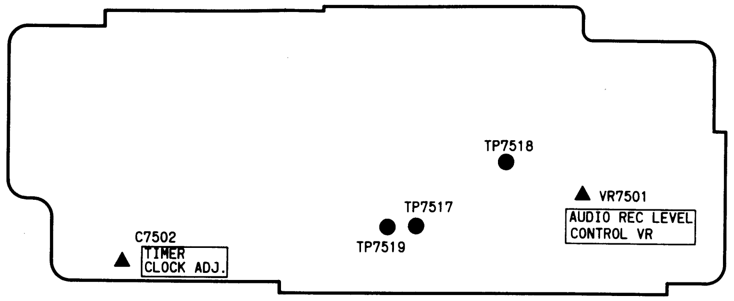
HD AUDIO C.B.A. (VEP04200A)


VR4503
HD AUDIO REC CURRENT ADJ.
VR4509
HD AUDIO CARRIER FREQ. ADJ. (R)
VR4508
AUDIO P.B. LEVEL ADJ. (R)
VR4507
HD AUDIO DEVIATION ADJ. (R)
VR4504
AUDIO P.B LEVEL ADJ. (L)
VR4505
AUDIO MUTING ADJ.
VR4501
HD AUDIO CARRIER FREQ. ADJ. (L)
VR4502
HD AUDIO DEVIATION ADJ. (L)

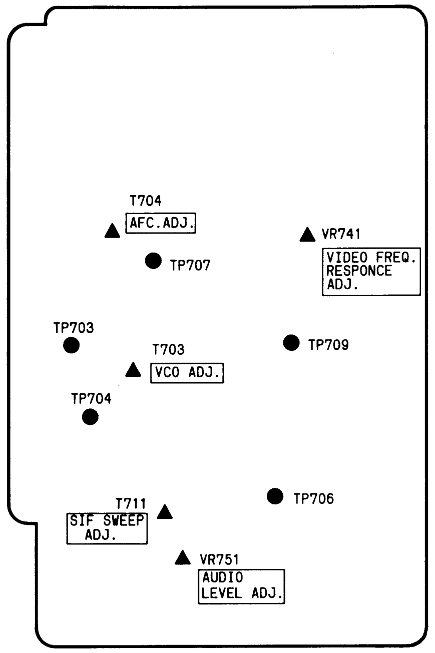
NOISE REDUCTION C.B.A. (VEP07400A)


TP7308
TP7312
VR7309
STEREO SEPARATION ADJ.
VR7311
MTS NOISE REDUCTION ADJ.
VR7310
STEREO SEPARATION ADJ.
TP7311

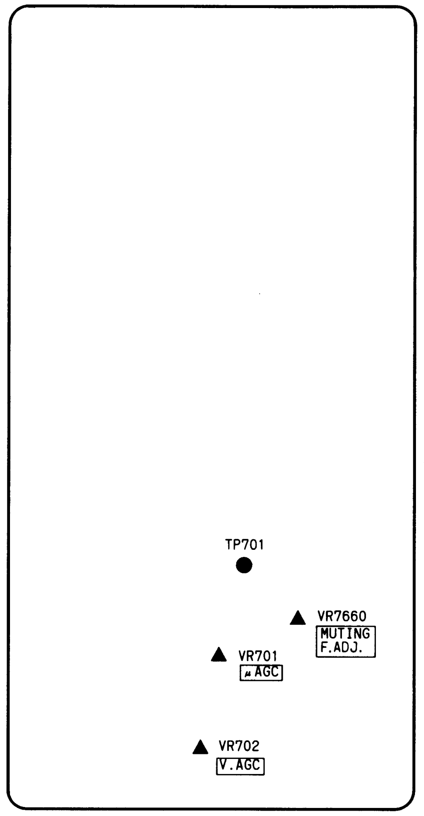
TIMER C.B.A. (VEP07391A)


TP7518
VR7501
AUDIO REC LEVEL CONTROL VR
TP7517
TP7519
C7502
TIMER CLOCK ADJ.

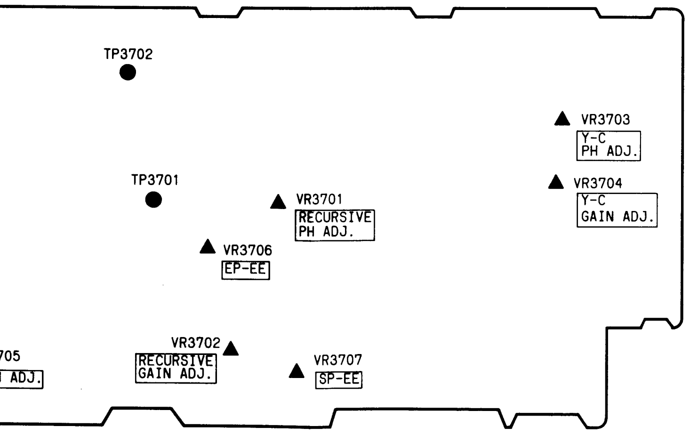
TV DEMODULATOR C.B.A. (VEP07348H)


T704
AFC.ADJ.
VR741
VIDEO FREQ. RESPONCE ADJ.
TP707
TP703
T703
VCO ADJ.
TP709
TP704
T711
SIF SWEEP ADJ.
TP706
VR751
AUDIO LEVEL ADJ.

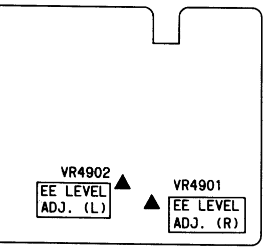
TUNER/ARU C.B.A. (VEP07349H)


TP701
VR7660
MUTING F.ADJ.
VR701
μAGC
VR702
V.AGC

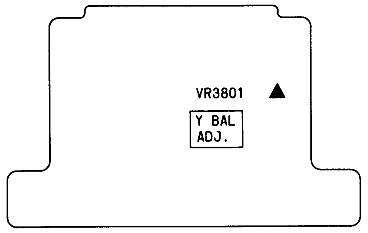
. (VEP03450A)


TP3702
VR3703
Y-C PH ADJ.
TP3701
VR3701
RECURSIVE PH ADJ.
VR3704
Y-C GAIN ADJ.
VR3706
EP-EE
705
ADJ.
VR3702
RECURSIVE GAIN ADJ.
VR3707
SP-EE

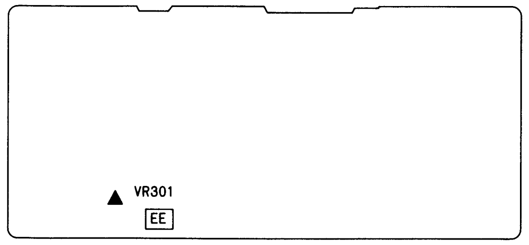
CK


VR4902
EE LEVEL ADJ. (L)
VR4901
EE LEVEL ADJ. (R)

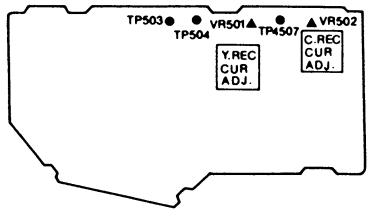
CCD PACK C.B.A. (VEP03449A)

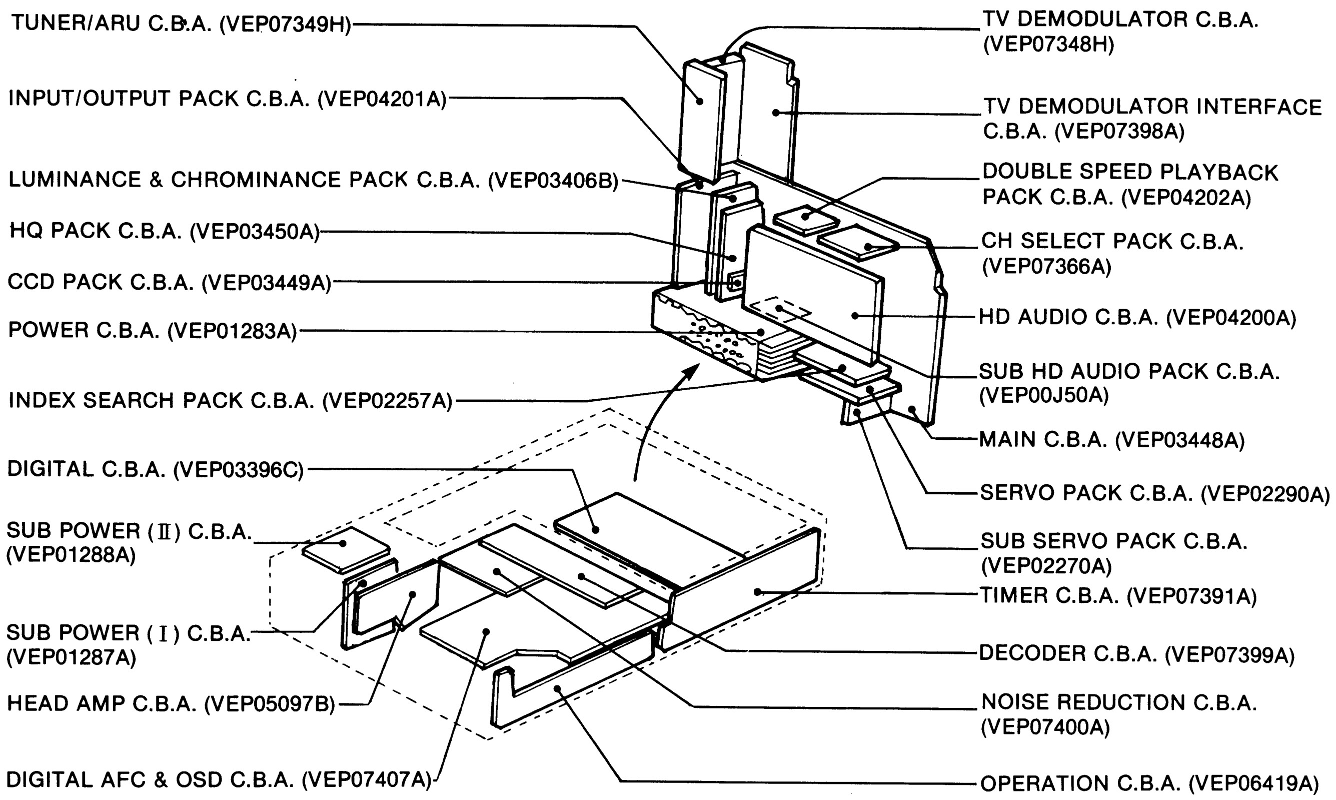

VR3801
Y BAL ADJ.

LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03406B)

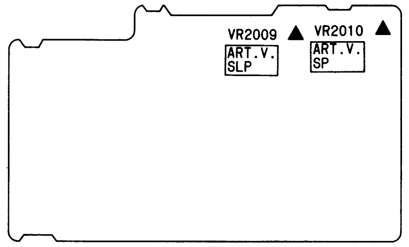


HEAD AMP C.B.A. (VEP05097B)

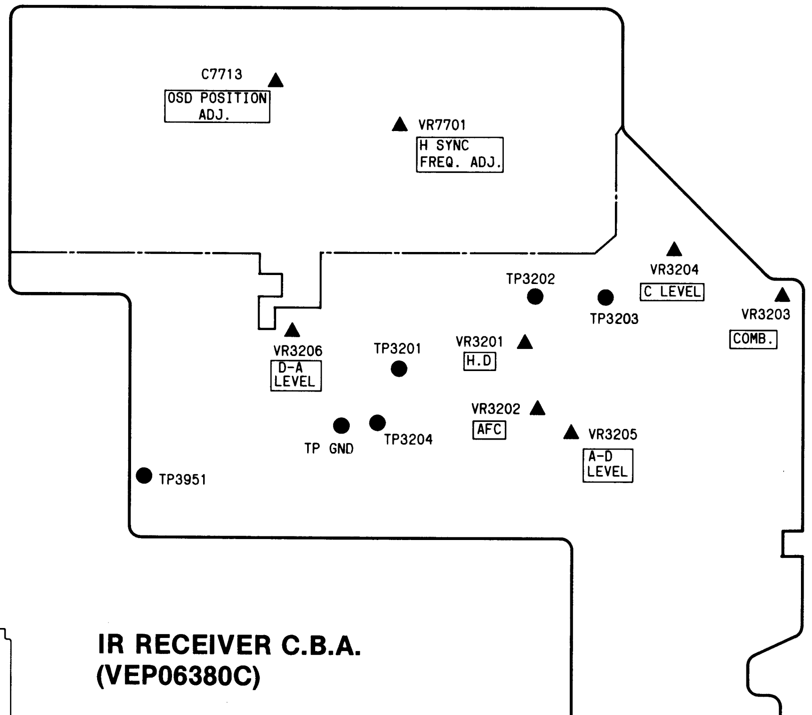

TP503
TP504
VR501
Y.REC CUR ADJ.
TP4507
VR502
C.REC CUR ADJ.


TUNER/ARU C.B.A. (VEP07349H)
INPUT/OUTPUT PACK C.B.A. (VEP04201A)
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03406B)
HQ PACK C.B.A. (VEP03450A)
CCD PACK C.B.A. (VEP03449A)
POWER C.B.A. (VEP01283A)
INDEX SEARCH PACK C.B.A. (VEP02257A)
DIGITAL C.B.A. (VEP03396C)
SUB POWER (II) C.B.A. (VEP01288A)
SUB POWER (I) C.B.A. (VEP01287A)
HEAD AMP C.B.A. (VEP05097B)
DIGITAL AFC & OSD C.B.A. (VEP07407A)
TV DEMODULATOR C.B.A. (VEP07348H)
TV DEMODULATOR INTERFACE C.B.A. (VEP07398A)
DOUBLE SPEED PLAYBACK PACK C.B.A. (VEP04202A)
CH SELECT PACK C.B.A. (VEP07366A)
HD AUDIO C.B.A. (VEP04200A)
SUB HD AUDIO PACK C.B.A. (VEP00J50A)
MAIN C.B.A. (VEP03448A)
SERVO PACK C.B.A. (VEP02290A)
SUB SERVO PACK C.B.A. (VEP02270A)
TIMER C.B.A. (VEP07391A)
DECODER C.B.A. (VEP07399A)
NOISE REDUCTION C.B.A. (VEP07400A)
OPERATION C.B.A. (VEP06419A)

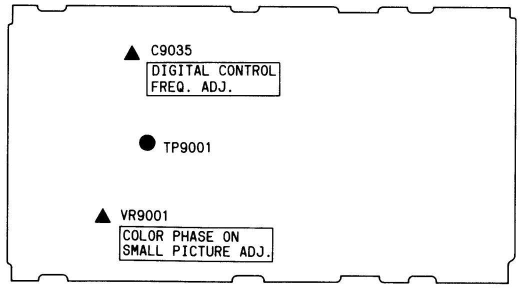
SERVO PACK C.B.A. (VEP02290A)


VR2009
ART.V. SLP
VR2010
ART.V. SP

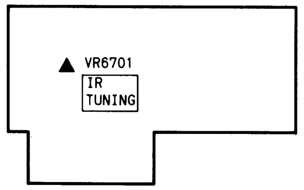
DIGITAL AFC & OSD C.B.A. (VEP07407A)


C7713
OSD POSITION ADJ.
VR7701
H SYNC FREQ. ADJ.
VR3204
C LEVEL
TP3202
TP3203
VR3203
COMB.
VR3206
D-A LEVEL
TP3201
VR3201
H.D
VR3202
AFC
VR3205
A-D LEVEL
TP GND
TP3204
TP3951
VR3951
H.D

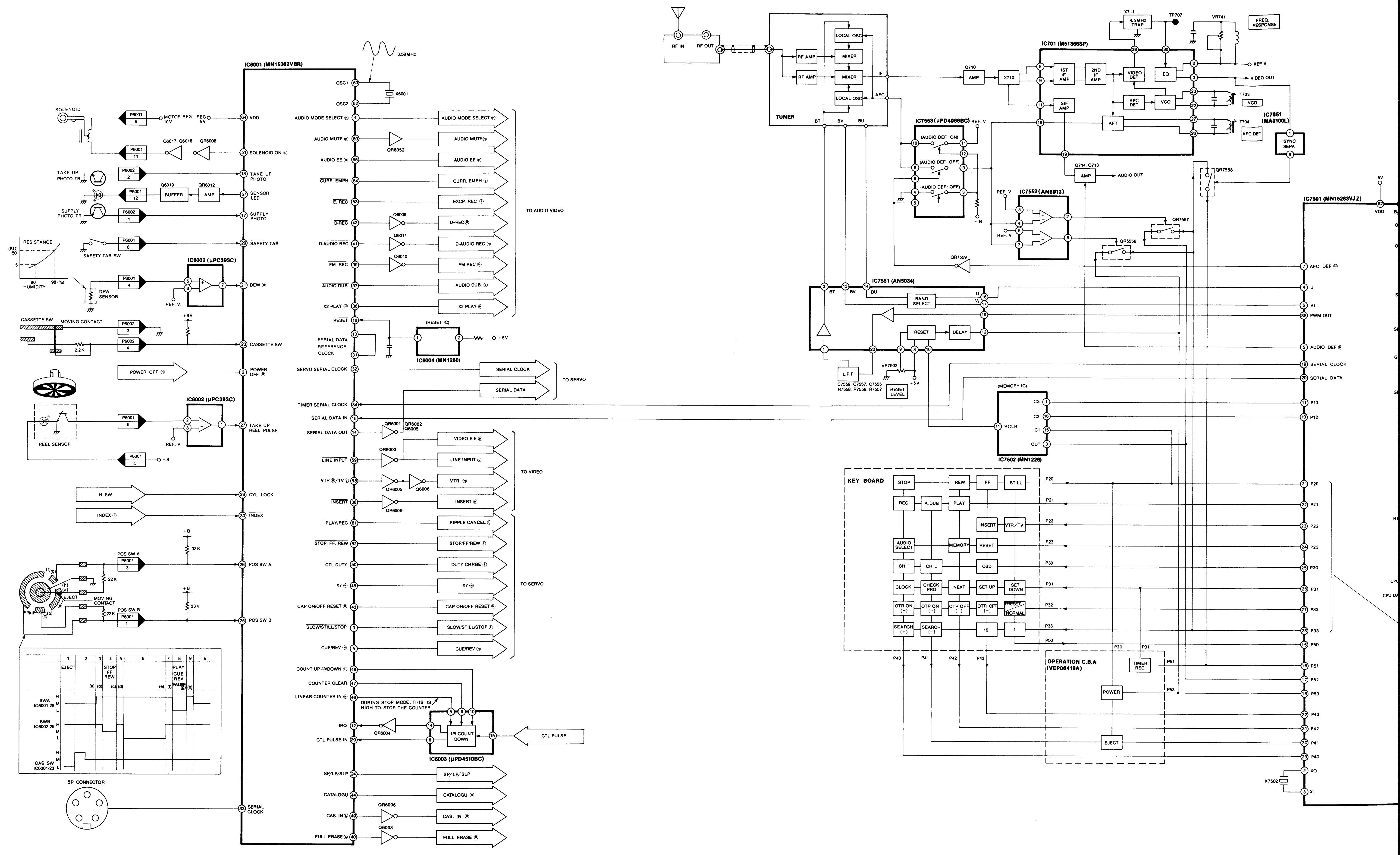
DIGITAL C.B.A. (VEP03396C)

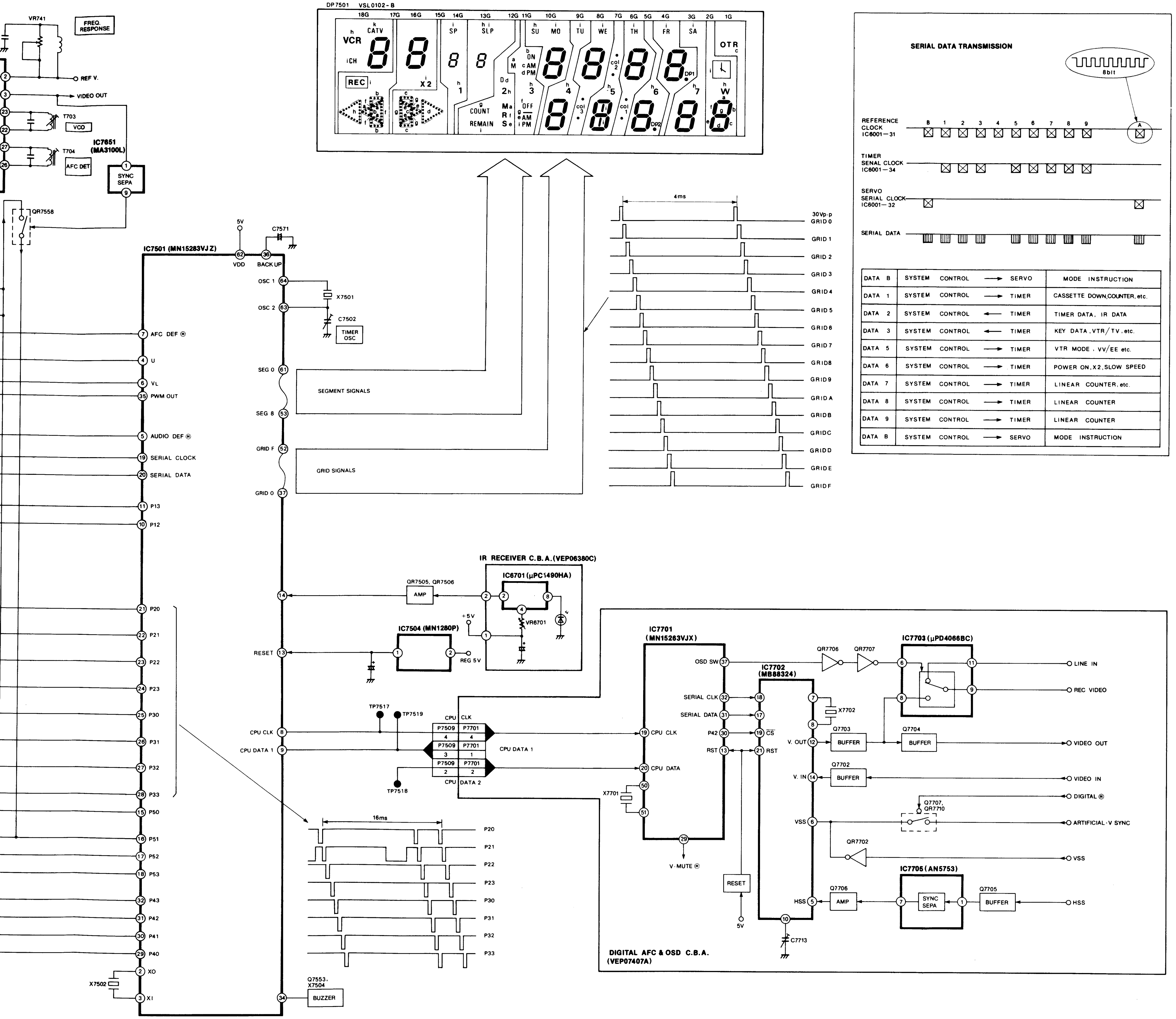

C9035
DIGITAL CONTROL FREQ. ADJ.
TP9001
VR9001
COLOR PHASE ON SMALL PICTURE ADJ.

IR RECEIVER C.B.A. (VEP06380C)


VR6701
IR TUNING

SYSTEM CONTROL & TIMER BLOCK DIAGRAM

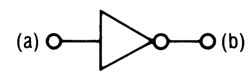

IC6001 (MN15362VBR)
3.58MHz
X6001
OSC1
OSC2
SOLENOID
MOTOR REG. 10V
REG 5V
VDD
Q6017, Q6018
QR6008
SOLENOID ON
TAKE UP PHOTO TR
TAKE UP PHOTO
Q6019
QR6012
BUFFER
AMP
SENSOR LED
SUPPLY PHOTO TR
SUPPLY PHOTO
SAFETY TAB SW
SAFETY TAB
RESISTANCE
(KΩ)
50
5
90
98 (%)
HUMIDITY
IC6002 (μPC393C)
DEW SENSOR
REF. V
DEW
CASSETTE SW
MOVING CONTACT
+6V
2.2K
CASSETTE SW
POWER OFF
REEL SENSOR
TAKE UP REEL PULSE
+B
H. SW
CYL. LOCK
INDEX
POS SW A
33K
22K
EJECT
POS SW B
EJECT
STOP FF REW
PLAY CUE REV PAUSE
SWA IC6001-26
SWB IC6002-25
CAS SW IC6001-23
5P CONNECTOR
SERIAL CLOCK
AUDIO MODE SELECT
AUDIO MUTE
QR6052
AUDIO EE
CURR. EMPH
E. REC
EXCP. REC
D-REC
Q6009
D-AUDIO REC
Q6011
FM. REC
Q6010
AUDIO DUB.
X2 PLAY
TO AUDIO VIDEO
RESET
(RESET IC)
IC6004 (MN1280)
+5V
SERIAL DATA REFERENCE CLOCK
SERVO SERIAL CLOCK
SERIAL CLOCK
SERIAL DATA
TO SERVO
TIMER SERIAL CLOCK
SERIAL DATA IN
SERIAL DATA OUT
QR6001
QR6002
Q6005
VIDEO E-E
LINE INPUT
QR6003
VTR/TV
VTR
QR6005
Q6006
INSERT
QR6009
TO VIDEO
PLAY/REC
RIPPLE CANCEL
STOP. FF. REW
STOP/FF/REW
CTL DUTY
DUTY CHRGE
X7
CAP ON/OFF RESET
SLOW/STILL/STOP
CUE/REV
TO SERVO
COUNT UP/DOWN
COUNTER CLEAR
LINEAR COUNTER IN
DURING STOP MODE, THIS IS HIGH TO STOP THE COUNTER
IRQ
QR6004
CTL PULSE IN
1/5 COUNT DOWN
CTL PULSE
IC6003 (μPD4510BC)
SP/LP/SLP
CATALOGU
CAS. IN
QR6006
FULL ERASE
Q6008
RF IN
RF OUT
TUNER
RF AMP
LOCAL OSC
MIXER
IF
AFC
BT
BV
BU
X711
4.5MHz TRAP
TP707
VR741
FREQ. RESPONSE
IC701 (M51366SP)
Q710
AMP
X710
1ST IF AMP
2ND IF AMP
VIDEO DET
EQ
REF. V
VIDEO OUT
SIF AMP
APC DET
VCO
T703
T704
AFC DET
AFT
IC7651 (MA3100L)
SYNC SEPA
Q714, Q713
AUDIO OUT
IC7553 (μPD4066BC)
(AUDIO DEF: ON)
(AUDIO DEF: OFF)
QR7558
IC7552 (AN6913)
QR7557
QR5556
QR7559
IC7501 (MN15283VJZ)
5V
VDD
AFC DEF
U
VL
PWM OUT
IC7551 (AN5034)
BAND SELECT
RESET
DELAY
L.P.F
C7559, C7557, C7555
R7558, R7559, R7557
VR7502
RESET LEVEL
AUDIO DEF
SERIAL CLOCK
SERIAL DATA
(MEMORY IC)
PCLR
C3
C2
C1
OUT
IC7502 (MN1226)
P13
P12
KEY BOARD
STOP
REW
FF
STILL
REC
A.DUB
PLAY
INSERT
VTR/TV
AUDIO SELECT
MEMORY
RESET
CH ↑
CH ↓
OSD
CLOCK
CHECK PRO
NEXT
SET UP
SET DOWN
OTR ON (+)
OTR ON (−)
OTR OFF (+)
OTR OFF (−)
PRESET NORMAL
SEARCH (+)
SEARCH (−)
10
1
P20
P21
P22
P23
P30
P31
P32
P33
P50
P40
P41
P42
P43
P51
P52
P53
OPERATION C.B.A (VEP08419A)
TIMER REC
POWER
EJECT
X7502
XO
XI


DP7501 VSL0102-B
VCR
CATV
iCH
REC
SP
SLP
SU MO TU WE TH FR SA
OTR
COUNT
REMAIN
VR741
FREQ. RESPONSE
REF V.
VIDEO OUT
T703
VCO
T704
AFC DET
IC7651 (MA3100L)
SYNC SEPA
QR7558
IC7501 (MN15283VJ Z)
5V
VDD
BACK UP
C7571
OSC 1
OSC 2
X7501
C7502
TIMER OSC
AFC DEF Ⓗ
U
VL
PWM OUT
AUDIO DEF Ⓗ
SERIAL CLOCK
SERIAL DATA
P13
P12
P20
P21
P22
P23
P30
P31
P32
P33
P50
P51
P52
P53
P43
P42
P41
P40
XO
XI
X7502
SEG 0
SEG 8
GRID F
GRID 0
SEGMENT SIGNALS
GRID SIGNALS
4ms
30Vp-p
GRID 0
GRID 1
GRID 2
GRID 3
GRID 4
GRID 5
GRID 6
GRID 7
GRID 8
GRID 9
GRID A
GRID B
GRID C
GRID D
GRID E
GRID F
SERIAL DATA TRANSMISSION
8bit
REFERENCE CLOCK IC6001—31
TIMER SERIAL CLOCK IC6001—34
SERVO SERIAL CLOCK IC6001—32
SERIAL DATA
IR RECEIVER C.B.A. (VEP06380C)
IC6701 (μPC1490HA)
QR7505, QR7506
AMP
VR6701
+5V
IC7504 (MN1280P)
RESET
REG 5V
TP7517
TP7519
TP7518
CPU CLK
CPU DATA 1
CPU DATA 2
P7509
P7701
16ms
Q7553, X7504
BUZZER
IC7701 (MN15263VJX)
OSD SW
SERIAL CLK
SERIAL DATA
P42
RST
CPU CLK
CPU DATA
X7701
V-MUTE Ⓗ
RESET
5V
IC7702 (MB88324)
CS
X7702
V. OUT
V. IN
VSS
HSS
C7713
QR7706
QR7707
IC7703 (μPD4066BC)
LINE IN
REC VIDEO
Q7703
BUFFER
Q7704
BUFFER
VIDEO OUT
Q7702
BUFFER
VIDEO IN
DIGITAL Ⓗ
Q7707, QR7710
ARTIFICIAL-V SYNC
QR7702
VSS
IC7705 (AN5753)
SYNC SEPA
Q7706
AMP
Q7705
BUFFER
HSS
DIGITAL AFC & OSD C.B.A. (VEP07407A)

DATA B	SYSTEM CONTROL → SERVO	MODE INSTRUCTION
DATA 1	SYSTEM CONTROL → TIMER	CASSETTE DOWN,COUNTER, etc.
DATA 2	SYSTEM CONTROL ← TIMER	TIMER DATA, IR DATA
DATA 3	SYSTEM CONTROL ← TIMER	KEY DATA, VTR/TV, etc.
DATA 5	SYSTEM CONTROL → TIMER	VTR MODE, VV/EE etc.
DATA 6	SYSTEM CONTROL → TIMER	POWER ON, X2, SLOW SPEED
DATA 7	SYSTEM CONTROL → TIMER	LINEAR COUNTER, etc.
DATA 8	SYSTEM CONTROL → TIMER	LINEAR COUNTER
DATA 9	SYSTEM CONTROL → TIMER	LINEAR COUNTER
DATA B	SYSTEM CONTROL → SERVO	MODE INSTRUCTION

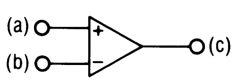
SYMBOL | **TRUTH VALUE TABLE**

INVERTER



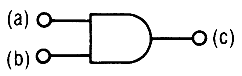
IN	(a)	H	L
OUT	(b)	L	H

COMPARTOR



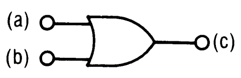
IN	(a) (b)	(a) > (b)	(a) < (b)
OUT	(c)	H	L

AND CIRCUIT



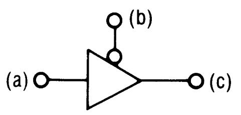
IN	(a)	L	L	H	H
	(b)	L	H	L	H
OUT	(c)	L	L	L	H

OR CIRCUIT



IN	(a)	L	L	H	H
	(b)	L	H	L	H
OUT	(c)	L	H	H	H

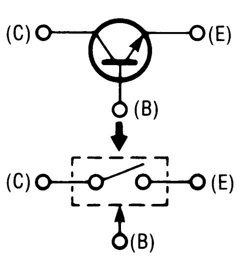
THREE STATES BUFFER



IN	(a)	H	L	H or L
	(b)	L	L	H
OUT	(c)	H	L	※

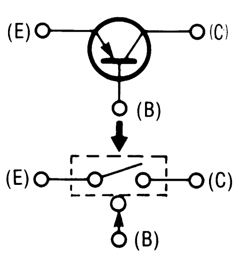
※ High Impedance

TR. SW (NPN TYPE)



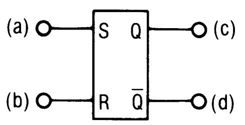
BASE	H	L
TR. SW	ON	OFF

TR. SW (PNP TYPE)



BASE	H	L
TR. SW	OFF	ON

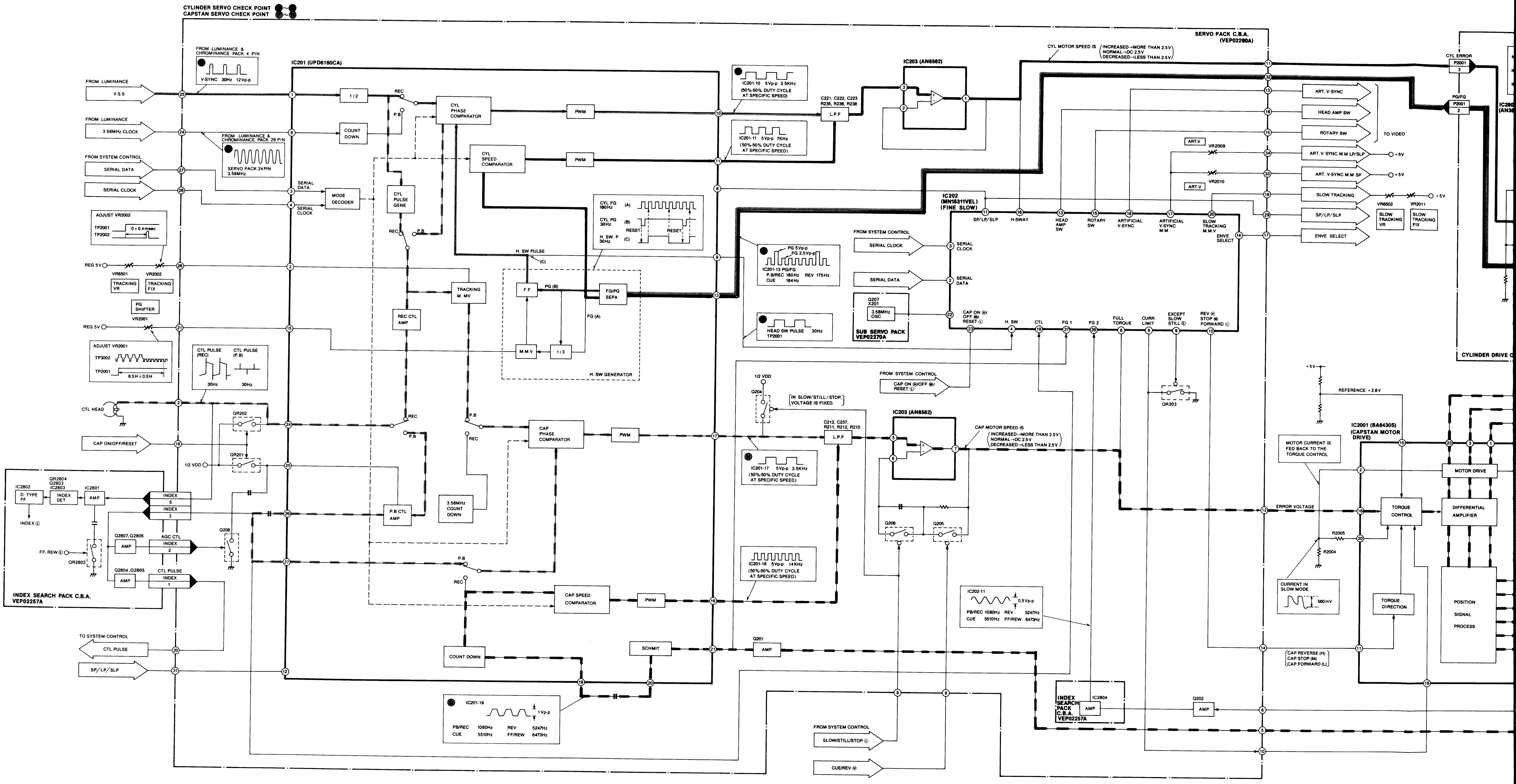
R-S TYPE FLIP-FLOP

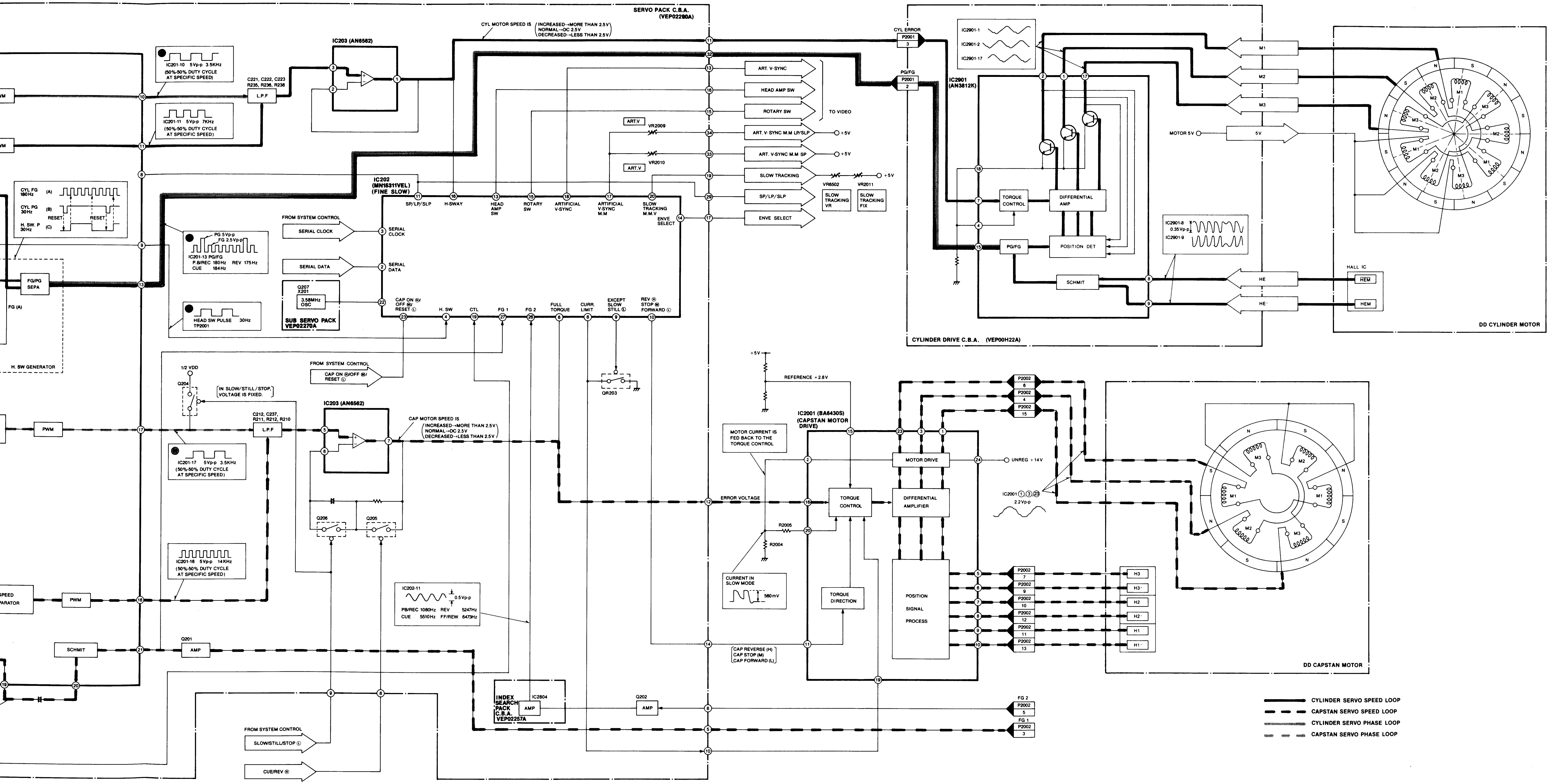


IN	(a)	L	L	⎍
	(b)	L	⎍	L
OUT	(c)	※	L	H
	(d)	◆	H	L

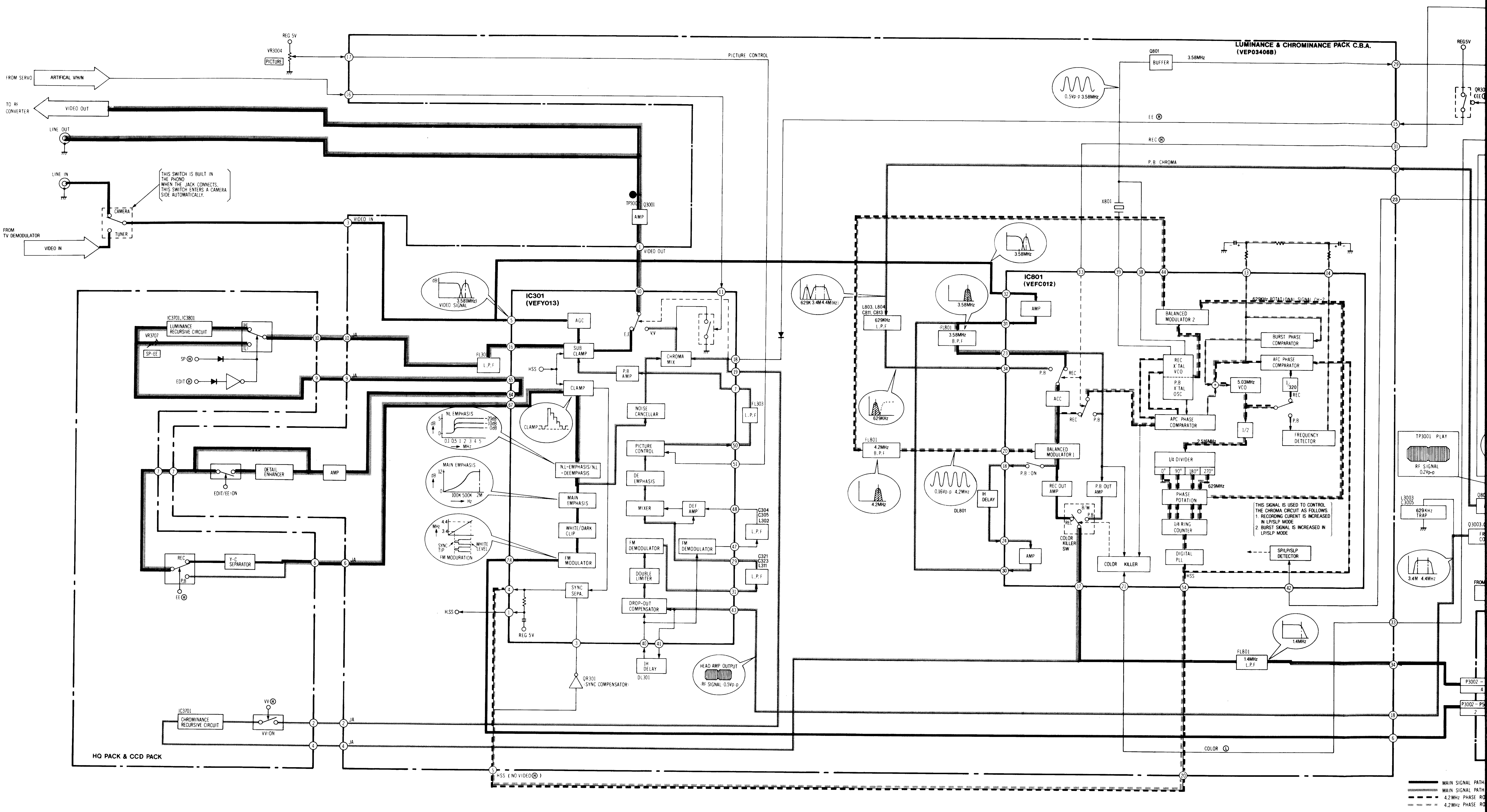
※ Initial condition is maintained.
◆ Initial condition is reverced.

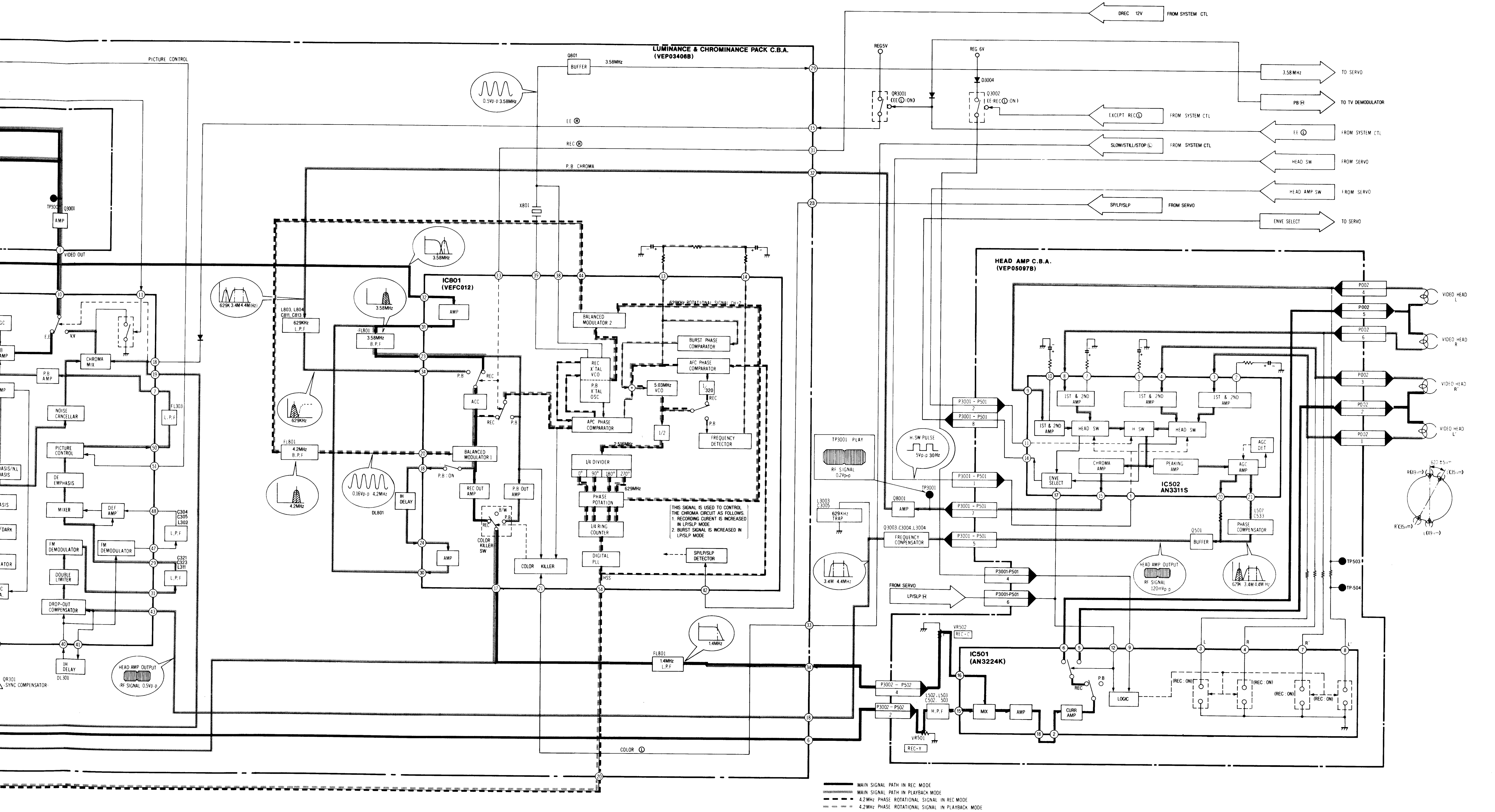
SERVO BLOCK DIAGRAM


CYLINDER SERVO CHECK POINT
CAPSTAN SERVO CHECK POINT
SERVO PACK C.B.A. (VEP02280A)
IC201 (UPD6160CA)
IC203 (AN6562)
IC202 (MN15311VEL) (FINE SLOW)
IC2001 (BA6430S) (CAPSTAN MOTOR DRIVE)
FROM LUMINANCE
V.S.S
3.58MHz CLOCK
FROM SYSTEM CONTROL
SERIAL DATA
SERIAL CLOCK
FROM LUMINANCE & CHROMINANCE PACK 4 PIN
V-SYNC 30Hz 12Vp-p
FROM LUMINANCE & CHROMINANCE PACK 29 PIN
SERVO PACK 24PIN 3.58MHz
ADJUST VR2002
TP2001
TP2002
0±0.4msec
REG 5V
VR6501
VR2002
TRACKING VR
TRACKING FIX
PG SHIFTER
VR2001
ADJUST VR2001
TP3002
6.5H±0.5H
CTL PULSE (REC)
CTL PULSE (P.B)
30Hz
CTL HEAD
CAP ON/OFF/RESET
1/2 VDD
QR202
QR201
QR2804
Q2803
IC2803
IC2802
D-TYPE FF
INDEX DET
IC2801
AMP
INDEX 5
INDEX 3
INDEX 2
INDEX 1
INDEX Ⓛ
FF. REW Ⓢ
QR2803
Q2807, Q2806
AGC CTL
Q2804, Q2805
CTL PULSE
Q208
INDEX SEARCH PACK C.B.A. VEP02257A
TO SYSTEM CONTROL
CTL PULSE
SP/LP/SLP
1/2
COUNT DOWN
REC
P.B
CYL PHASE COMPARATOR
CYL SPEED COMPARATOR
PWM
SERIAL DATA
SERIAL CLOCK
MODE DECODER
CYL PULSE GENE
TRACKING M. MV
REC CTL AMP
H. SW PULSE
F.F
PG (B)
FG/PG SEPA
FG (A)
M.M.V
1/3
H. SW GENERATOR
CYL FG 180Hz
CYL PG 30Hz
H. SW. P 30Hz
RESET
P.B CTL AMP
3.58MHz COUNT DOWN
CAP PHASE COMPARATOR
CAP SPEED COMPARATOR
SCHMIT
IC201-10 5Vp-p 3.5KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
IC201-11 5Vp-p 7KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
C221, C222, C223 R235, R236, R238
L.P.F
IC201-13 PG/FG PG 5Vp-p FG 2.5Vp-p P.B/REC 180Hz REV 175Hz CUE 184Hz
HEAD SW PULSE 30Hz TP2001
IC201-17 5Vp-p 3.5KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
IC201-18 5Vp-p 14KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
IC201-19 1Vp-p PB/REC 1080Hz REV 5247Hz CUE 5510Hz FF/REW 6473Hz
Q201 AMP
CYL MOTOR SPEED IS (INCREASED→MORE THAN 2.5V / NORMAL→DC 2.5V / DECREASED→LESS THAN 2.5V)
ART. V-SYNC
HEAD AMP SW
ROTARY SW
TO VIDEO
ART.V
VR2009
VR2010
ART. V-SYNC M.M LP/SLP
ART. V-SYNC M.M SP
+5V
SLOW TRACKING
SP/LP/SLP
ENVE SELECT
VR6502
VR2011
SLOW TRACKING VR
SLOW TRACKING FIX
SP/LP/SLP
H-SWAY
HEAD AMP SW
ROTARY SW
ARTIFICIAL V-SYNC
ARTIFICIAL V-SYNC M.M
SLOW TRACKING M.M.V
ENVE SELECT
FROM SYSTEM CONTROL
SERIAL CLOCK
SERIAL DATA
Q207 X201 3.58MHz OSC
SUB SERVO PACK VEP02270A
CAP ON Ⓗ/ OFF Ⓜ/ RESET Ⓛ
H. SW
CTL
FG 1
FG 2
FULL TORQUE
CURR. LIMIT
EXCEPT SLOW STILL Ⓛ
REV Ⓗ STOP Ⓜ FORWARD Ⓛ
QR203
CYL ERROR
P2001 3
PG/FG
P2001 2
CYLINDER DRIVE
1/2 VDD
Q204
IN SLOW/STILL/STOP, VOLTAGE IS FIXED.
FROM SYSTEM CONTROL
CAP ON Ⓗ/OFF Ⓜ/ RESET Ⓛ
IC203 (AN6562)
C212, C237, R211, R212, R210
CAP MOTOR SPEED IS (INCREASED→MORE THAN 2.5V / NORMAL→DC 2.5V / DECREASED→LESS THAN 2.5V)
Q206
Q205
IC202-11 0.5Vp-p PB/REC 1080Hz REV 5247Hz CUE 5510Hz FF/REW 6473Hz
INDEX SEARCH PACK C.B.A. VEP02257A
IC2804 AMP
Q202 AMP
FROM SYSTEM CONTROL
SLOW/STILL/STOP Ⓛ
CUE/REV Ⓗ
+5V
REFERENCE +2.8V
MOTOR CURRENT IS FED BACK TO THE TORQUE CONTROL
ERROR VOLTAGE
R2005
R2004
CURRENT IN SLOW MODE 560mV
TORQUE CONTROL
DIFFERENTIAL AMPLIFIER
MOTOR DRIVE
TORQUE DIRECTION
POSITION SIGNAL PROCESS
CAP REVERSE (H) CAP STOP (M) CAP FORWARD (L)

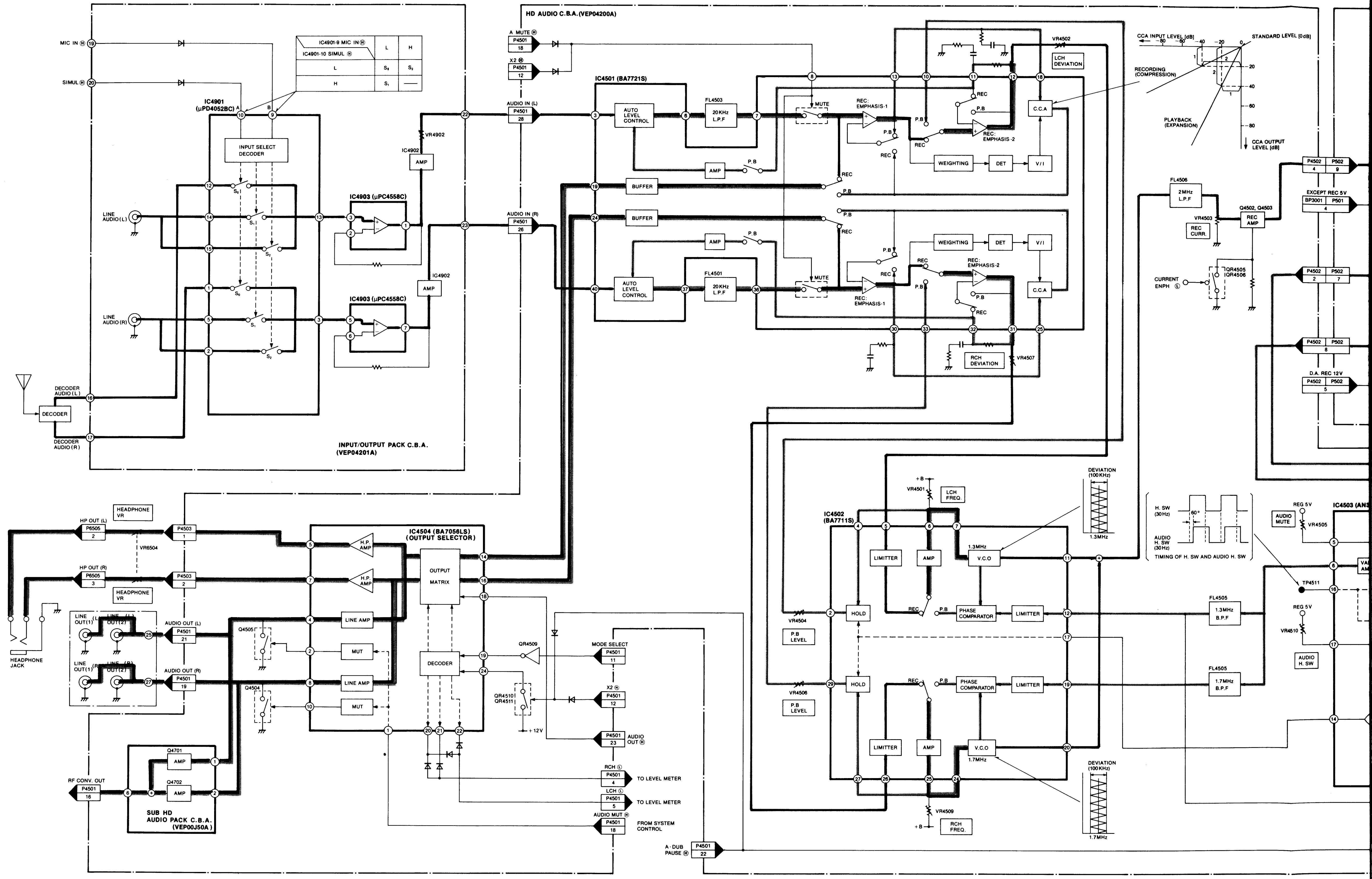

SERVO PACK C.B.A. (VEP02290A)
IC203 (AN6562)
IC201-10 5Vp-p 3.5KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
IC201-11 5Vp-p 7KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
C221, C222, C223 R235, R236, R238
L.P.F
CYL MOTOR SPEED IS (INCREASED→MORE THAN 2.5V NORMAL→DC 2.5V DECREASED→LESS THAN 2.5V)
CYL FG 180Hz (A)
CYL PG 30Hz (B)
H. SW. P 30Hz (C)
RESET
PG 5Vp-p
FG 2.5Vp-p
IC201-13 PG/FG P.B/REC 180Hz REV 175Hz CUE 184Hz
FG/PG SEPA
FG (A)
HEAD SW PULSE 30Hz TP2001
H. SW GENERATOR
IC202 (MN15311VEL) (FINE SLOW)
SP/LP/SLP
H-SWAY
HEAD AMP SW
ROTARY SW
ARTIFICIAL V-SYNC
ARTIFICIAL V-SYNC M.M
SLOW TRACKING M.M.V
ENVE SELECT
FROM SYSTEM CONTROL
SERIAL CLOCK
SERIAL DATA
Q207 X201
3.58MHz OSC
SUB SERVO PACK VEP02270A
CAP ON Ⓗ/ OFF Ⓜ/ RESET Ⓛ
H. SW
CTL
FG 1
FG 2
FULL TORQUE
CURR. LIMIT
EXCEPT SLOW STILL Ⓛ
REV Ⓗ STOP Ⓜ FORWARD Ⓛ
ART. V-SYNC
HEAD AMP SW
ROTARY SW
TO VIDEO
ART.V
VR2009
VR2010
ART. V-SYNC M.M LP/SLP
ART. V-SYNC M.M SP
SLOW TRACKING
SP/LP/SLP
ENVE SELECT
+5V
VR6502
VR2011
SLOW TRACKING VR
SLOW TRACKING FIX
QR203
1/2 VDD
Q204
IN SLOW/STILL/STOP, VOLTAGE IS FIXED.
FROM SYSTEM CONTROL
CAP ON Ⓗ/OFF Ⓜ/ RESET Ⓛ
C212, C237, R211, R212, R210
CAP MOTOR SPEED IS (INCREASED→MORE THAN 2.5V NORMAL→DC 2.5V DECREASED→LESS THAN 2.5V)
PWM
IC201-17 5Vp-p 3.5KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
Q206
Q205
IC201-16 5Vp-p 14KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
SPEED
PARATOR
IC202-11 0.5Vp-p
PB/REC 1080Hz REV 5247Hz
CUE 5510Hz FF/REW 6473Hz
SCHMIT
Q201
AMP
INDEX SEARCH PACK C.B.A. VEP02257A
IC2804
Q202
FROM SYSTEM CONTROL
SLOW/STILL/STOP Ⓛ
CUE/REV Ⓗ
ERROR VOLTAGE
CYL ERROR
P2001
PG/FG
IC2901-1
IC2901-2
IC2901-17
IC2901 (AN3812K)
TORQUE CONTROL
DIFFERENTIAL AMP
PG/FG
POSITION DET
SCHMIT
IC2901-8 0.35Vp-p
IC2901-9
M1
M2
M3
MOTOR 5V
5V
HE
HE-
HALL IC
HEM
CYLINDER DRIVE C.B.A. (VEP00H22A)
DD CYLINDER MOTOR
S
N
+5V
REFERENCE +2.8V
MOTOR CURRENT IS FED BACK TO THE TORQUE CONTROL
IC2001 (BA6430S) (CAPSTAN MOTOR DRIVE)
P2002
MOTOR DRIVE
UNREG +14V
TORQUE CONTROL
DIFFERENTIAL AMPLIFIER
IC2001 ① ③ ㉓
2.2Vp-p
R2005
R2004
CURRENT IN SLOW MODE
580mV
TORQUE DIRECTION
POSITION SIGNAL PROCESS
H3
H3-
H2
H2-
H1
H1-
CAP REVERSE (H) CAP STOP (M) CAP FORWARD (L)
DD CAPSTAN MOTOR
FG 2
FG 1
CYLINDER SERVO SPEED LOOP
CAPSTAN SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP
CAPSTAN SERVO PHASE LOOP

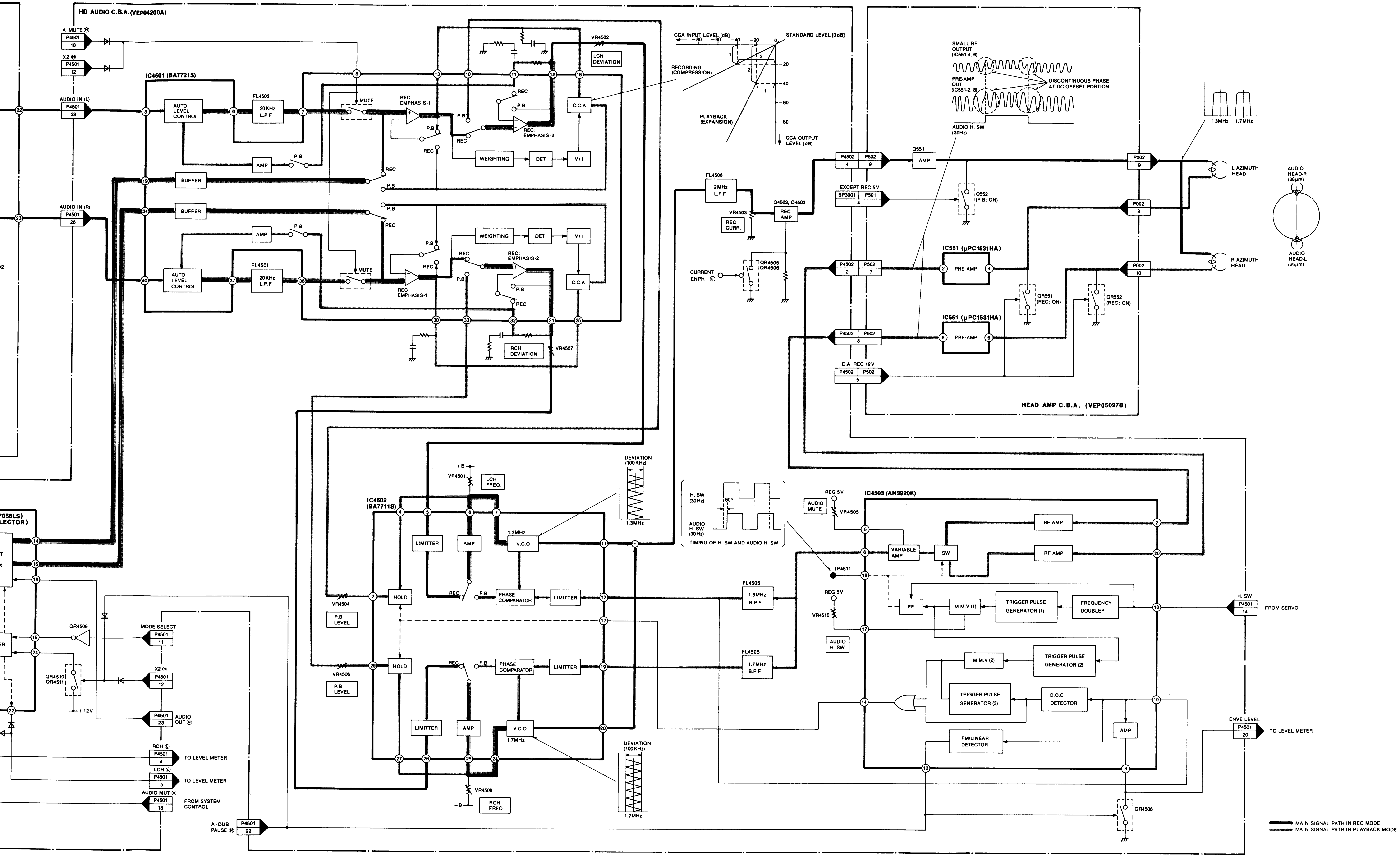
LUMINANCE & CHROMINANCE BLOCK DIAGRAM


REG 5V
VR3004
PICTURE
PICTURE CONTROL
FROM SERVO
ARTIFICAL V/H/N
TO RF CONVERTER
VIDEO OUT
LINE OUT
LINE IN
THIS SWITCH IS BUILT IN THE PHONO WHEN THE JACK CONNECTS. THIS SWITCH ENTERS A CAMERA SIDE AUTOMATICALLY.
CAMERA
TUNER
FROM TV DEMODULATOR
VIDEO IN
VIDEO IN
TP3001
Q3001
AMP
VIDEO OUT
IC301 (VEFY013)
3.58(MHz)
VIDEO SIGNAL
AGC
SUB CLAMP
CLAMP
HSS
FL301
L.P.F
E.E
V.V
CHROMA MIX
P.B AMP
NOISE CANCELLAR
PICTURE CONTROL
DE EMPHASIS
MIXER
DEF AMP
FM DEMODULATOR
FM DEMODULATOR
DOUBLE LIMITER
DROP-OUT COMPENSATOR
1H DELAY
DL301
FL303
C304 C305 L302
C321 C323 L311
HEAD AMP OUTPUT
RF SIGNAL 0.5Vp-p
IC3701, IC3801
LUMINANCE RECURSIVE CIRCUIT
VR3707
SP-EE
SP Ⓗ
EDIT Ⓗ
JA
NL EMPHASIS
-20dB
-10dB
-0dB
0.1 0.5 1 2 3 4 5 MHz
N.L-EMPHASIS/N.L -DEEMPHASIS
MAIN EMPHASIS
100K 500K 2M Hz
MAIN EMPHASIS
WHITE/DARK CLIP
4.4
3.4
SYNC TIP
WHITE LEVEL
FM MODURATION
FM MODULATOR
SYNC SEPA.
H.SS
REG 5V
QR301 (SYNC COMPENSATOR)
DETAIL ENHANCER
AMP
EDIT/EE:ON
REC
P.B
EE Ⓗ
Y-C SEPARATOR
IC3701
CHROMINANCE RECURSIVE CIRCUIT
VV Ⓗ
VV:ON
HQ PACK & CCD PACK
HSS (NO VIDEO Ⓗ)
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03406B)
Q801
BUFFER
3.58MHz
0.5Vp-p 3.58MHz
EE Ⓗ
REC Ⓗ
P.B CHROMA
REG5V
X801
IC801 (VEFC012)
629K 3.4M 4.4M(Hz)
L803, L804 C811, C813
629KHz L.P.F
FL801
3.58MHz B.P.F
629KHz
FL801
4.2MHz B.P.F
4.2MHz
0.16Vp-p 4.2MHz
DL801
1H DELAY
P.B:ON
ACC
BALANCED MODULATOR 1
REC OUT AMP
P.B OUT AMP
B/W
COLOR KILLER SW
COLOR KILLER
BALANCED MODULATOR 2
629KHz ROTATIONAL SIGNAL CH-2
BURST PHASE COMPARATOR
AFC PHASE COMPARATOR
REC X'TAL VCO
P.B X'TAL OSC
5.03MHz VCO
1/320
APC PHASE COMPARATOR
1/2
FREQUENCY DETECTOR
2.516MHz
1/4 DIVIDER
0° 90° 180° 270°
629MHz
PHASE POTATION
1/4 RING COUNTER
DIGITAL PLL
THIS SIGNAL IS USED TO CONTROL THE CHROMA CIRCUIT AS FOLLOWS. 1. RECORDING CURENT IS INCREASED IN LP/SLP MODE 2. BURST SIGNAL IS INCREASED IN LP/SLP MODE
SP/LP/SLP DETECTOR
TP3001 PLAY
RF SIGNAL 0.2Vp-p
L3003 C3005
629KHz TRAP
Q3003
3.4M 4.4MHz
FL801
1.4MHz L.P.F
1.4MHz
P3002
COLOR Ⓛ
FROM
MAIN SIGNAL PATH
MAIN SIGNAL PATH
4.2MHz PHASE RO
4.2MHz PHASE RO

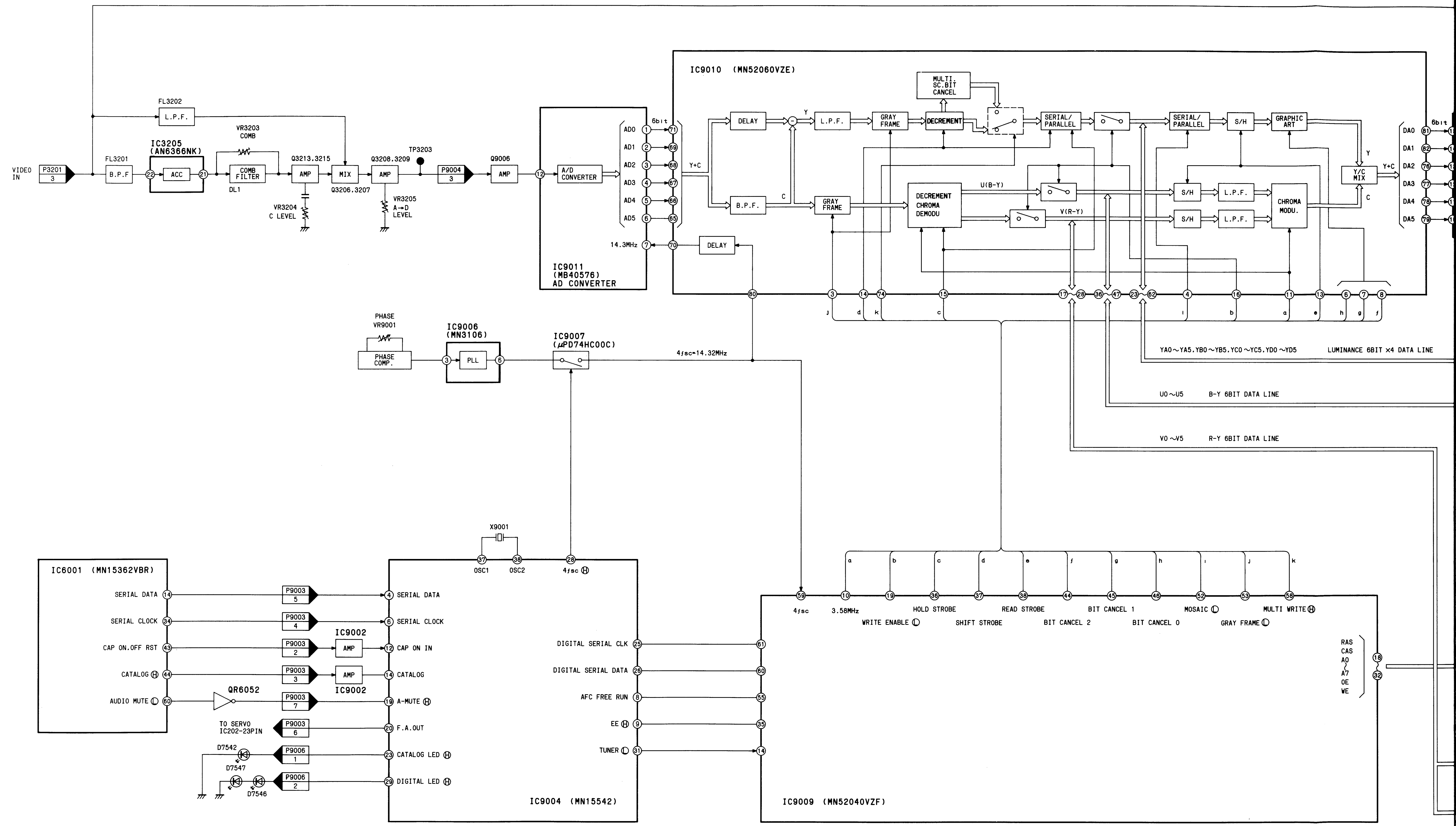

LUMINANCE & CHROMINANCE PACK C.B.A.
(VEP03406B)
HEAD AMP C.B.A.
(VEP05097B)
IC801
(VEFC012)
IC502
AN3311S
IC501
(AN3224K)
PICTURE CONTROL
VIDEO OUT
AMP
Q3001
CHROMA MIX
P.B AMP
NOISE CANCELLAR
PICTURE CONTROL
DE EMPHASIS
MIXER
DEF AMP
FM DEMODULATOR
DOUBLE LIMITER
DROP-OUT COMPENSATOR
1H DELAY
DL301
QR301
SYNC COMPENSATOR
HEAD AMP OUTPUT
RF SIGNAL 0.5Vp-p
FL303
L.P.F
C304 C305 L302
C321 C323 L311
Q801
BUFFER
3.58MHz
0.5Vp-p 3.58MHz
EE Ⓗ
REC Ⓗ
P.B CHROMA
X801
629K 3.4M 4.4M(Hz)
L803, L804
C811, C813
629KHz L.P.F
FL801
3.58MHz B.P.F
4.2MHz B.P.F
4.2MHz
629KHz
AMP
ACC
BALANCED MODULATOR 1
BALANCED MODULATOR 2
1H DELAY
REC OUT AMP
P.B OUT AMP
COLOR KILLER SW
COLOR KILLER
0.16Vp-p 4.2MHz
DL801
REC X'TAL VCO
P.B X'TAL OSC
APC PHASE COMPARATOR
BURST PHASE COMPARATOR
AFC PHASE COMPARATOR
5.03MHz VCO
1/320
1/2
FREQUENCY DETECTOR
629KHz ROTATIONAL SIGNAL CH-2
2.516MHz
1/4 DIVIDER
0° 90° 180° 270°
PHASE POTATION
1/4 RING COUNTER
DIGITAL PLL
SP/LP/SLP DETECTOR
THIS SIGNAL IS USED TO CONTROL THE CHROMA CIRCUIT AS FOLLOWS.
1. RECORDING CURENT IS INCREASED IN LP/SLP MODE
2. BURST SIGNAL IS INCREASED IN LP/SLP MODE
FL801
1.4MHz L.P.F
1.4MHz
COLOR Ⓛ
DREC 12V
FROM SYSTEM CTL
REG5V
REG 6V
D3004
QR3001 (EE Ⓛ : ON)
Q3002 (EE·REC Ⓛ : ON)
EXCEPT REC Ⓛ
FROM SYSTEM CTL
SLOW/STILL/STOP Ⓛ
FROM SYSTEM CTL
SP/LP/SLP
FROM SERVO
3.58MHz
TO SERVO
PB Ⓗ
TO TV DEMODULATOR
EE Ⓛ
FROM SYSTEM CTL
HEAD SW
FROM SERVO
HEAD AMP SW
FROM SERVO
ENVE SELECT
TO SERVO
TP3001 PLAY
RF SIGNAL
0.2Vp-p
H.SW PULSE
5Vp-p 30Hz
TP3001
Q8001
AMP
L3003 C3005
629KHz TRAP
Q3003, C3004, L3004
FREQUENCY COMPENSATOR
3.4M 4.4MHz
FROM SERVO
LP/SLP Ⓗ
P3001 - P501
P3001-P501
P3002 - P502
1ST & 2ND AMP
HEAD SW
H SW
ENVE SELECT
CHROMA AMP
PEAKING AMP
AGC AMP
AGC DET
PHASE COMPENSATOR
L507 C533
Q501
BUFFER
HEAD AMP OUTPUT
RF SIGNAL
120mVp-p
629K 3.4M 4.4M Hz
P002
VIDEO HEAD L
VIDEO HEAD R
VIDEO HEAD R'
VIDEO HEAD L'
R(49μm)
L(35μm)
R'(35μm)
L'(49μm)
TP503
TP-504
VR502
REC-C
VR501
REC-Y
L502, L503
C502, 503
H.P.F
MIX
AMP
CURR AMP
LOGIC
P.B
REC
(REC : ON)
MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
4.2MHz PHASE ROTATIONAL SIGNAL IN REC MODE
4.2MHz PHASE ROTATIONAL SIGNAL IN PLAYBACK MODE

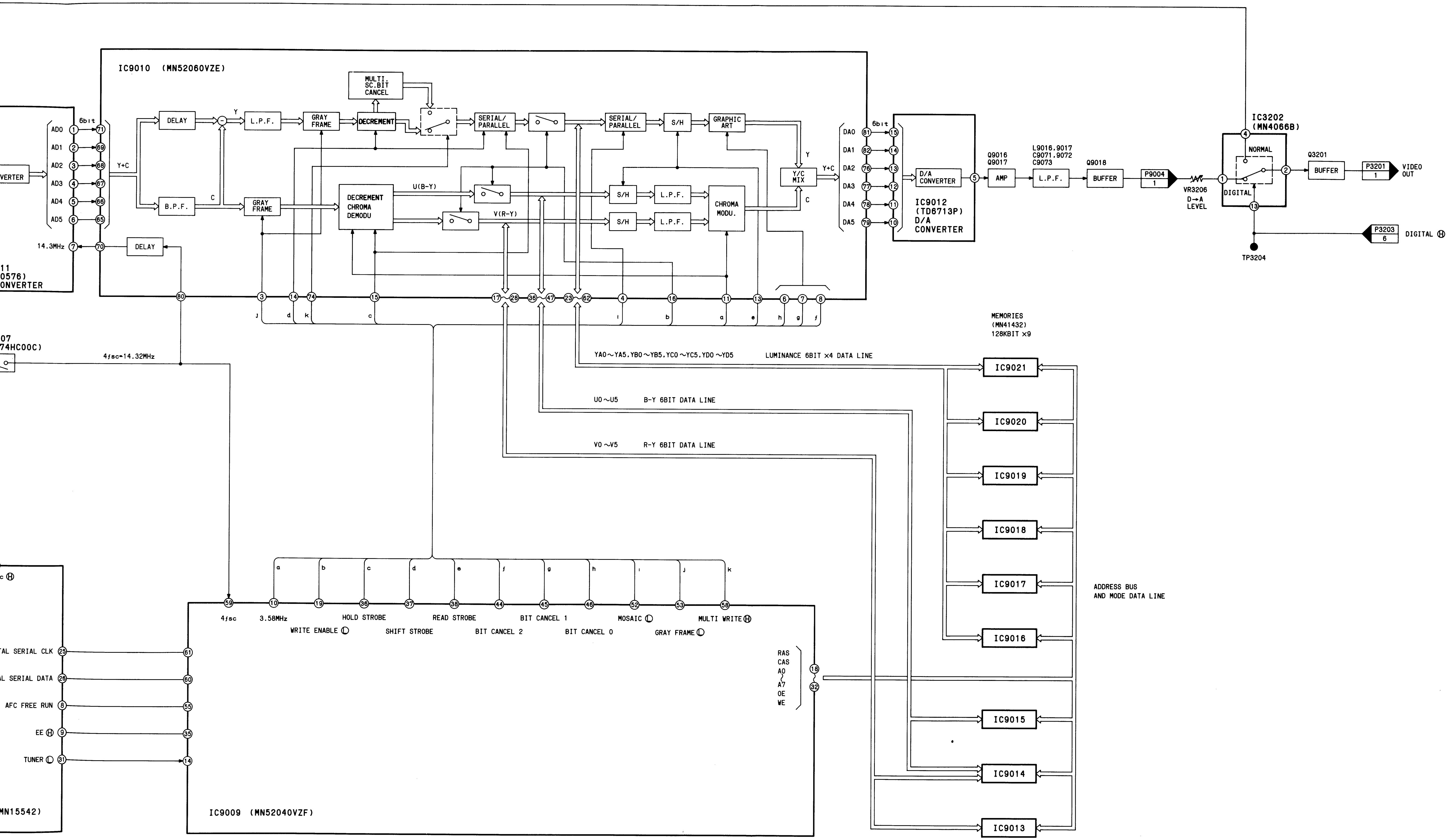
HD AUDIO BLOCK DIAGRAM


MIC IN Ⓗ
SIMUL Ⓗ
IC4901-9 MIC IN Ⓗ
IC4901-10 SIMUL Ⓗ
L
H
S0
S2
S1
IC4901 (μPD4052BC)
INPUT SELECT DECODER
LINE AUDIO (L)
LINE AUDIO (R)
IC4903 (μPC4558C)
IC4902
AMP
VR4902
DECODER
DECODER AUDIO (L)
DECODER AUDIO (R)
INPUT/OUTPUT PACK C.B.A. (VEP04201A)
HD AUDIO C.B.A. (VEP04200A)
A MUTE Ⓗ
X2 Ⓗ
AUDIO IN (L)
AUDIO IN (R)
P4501
IC4501 (BA7721S)
AUTO LEVEL CONTROL
FL4503
FL4501
20KHz L.P.F
MUTE
REC EMPHASIS-1
REC EMPHASIS-2
BUFFER
AMP
P.B
REC
WEIGHTING
DET
V/I
C.C.A
VR4502
LCH DEVIATION
RCH DEVIATION
VR4507
CCA INPUT LEVEL [dB]
STANDARD LEVEL [0dB]
RECORDING (COMPRESSION)
PLAYBACK (EXPANSION)
CCA OUTPUT LEVEL [dB]
-80
-60
-40
-20
0
FL4506
2MHz L.P.F
VR4503
REC CURR.
Q4502, Q4503
REC AMP
CURRENT ENPH Ⓛ
QR4505
QR4506
P4502
P502
EXCEPT REC 5V
BP3001
D.A. REC 12V
HEADPHONE VR
HP OUT (L)
HP OUT (R)
P6505
VR6504
P4503
HEADPHONE JACK
LINE OUT(1)
LINE OUT(2)
AUDIO OUT (L)
AUDIO OUT (R)
Q4505
Q4504
IC4504 (BA7056LS) (OUTPUT SELECTOR)
H.P. AMP
LINE AMP
MUT
OUTPUT MATRIX
DECODER
QR4509
MODE SELECT
QR4510
QR4511
+12V
AUDIO OUT Ⓗ
RCH Ⓛ
LCH Ⓛ
TO LEVEL METER
AUDIO MUT Ⓗ
FROM SYSTEM CONTROL
A-DUB PAUSE Ⓗ
RF CONV. OUT
Q4701
Q4702
SUB HD AUDIO PACK C.B.A. (VEP00J50A)
IC4502 (BA7711S)
+B
VR4501
LCH FREQ.
VR4509
RCH FREQ.
LIMITTER
AMP
V.C.O
1.3MHz
1.7MHz
HOLD
PHASE COMPARATOR
VR4504
VR4506
P.B LEVEL
DEVIATION (100KHz)
H. SW (30Hz)
60°
AUDIO H. SW (30Hz)
TIMING OF H. SW AND AUDIO H. SW
REG 5V
AUDIO MUTE
VR4505
IC4503 (AN
TP4511
VR4510
AUDIO H. SW
FL4505
1.3MHz B.P.F
1.7MHz B.P.F

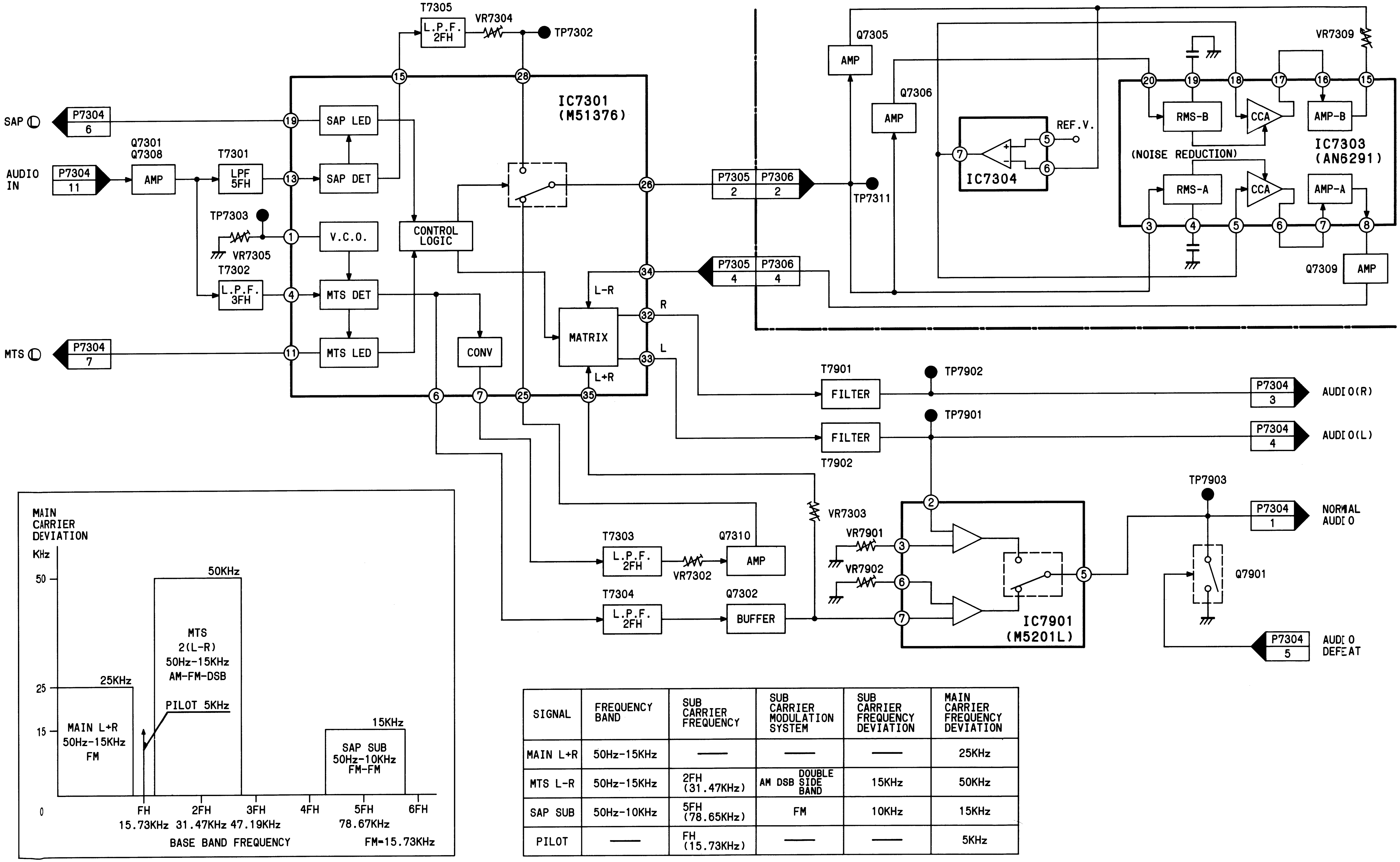

HD AUDIO C.B.A. (VEP04200A)
A MUTE Ⓗ
P4501 18
X2 Ⓗ
P4501 12
AUDIO IN (L)
P4501 28
AUDIO IN (R)
P4501 26
IC4501 (BA7721S)
AUTO LEVEL CONTROL
FL4503
20KHz L.P.F
FL4501
MUTE
REC: EMPHASIS-1
REC: EMPHASIS-2
P.B
REC
AMP
BUFFER
WEIGHTING
DET
V/I
C.C.A
VR4502
LCH DEVIATION
VR4507
RCH DEVIATION
CCA INPUT LEVEL [dB]
STANDARD LEVEL [0dB]
RECORDING (COMPRESSION)
PLAYBACK (EXPANSION)
CCA OUTPUT LEVEL [dB]
FL4506
2MHz L.P.F
VR4503
REC CURR.
Q4502, Q4503
REC AMP
CURRENT ENPH Ⓛ
QR4505 QR4506
SMALL RF OUTPUT (IC551-4, 6)
PRE-AMP OUT (IC551-2, 8)
DISCONTINUOUS PHASE AT DC OFFSET PORTION
AUDIO H. SW (30Hz)
1.3MHz
1.7MHz
P4502 P502
EXCEPT REC 5V
BP3001 P501
Q551
AMP
Q552 (P.B: ON)
IC551 (μPC1531HA)
PRE-AMP
QR551 (REC: ON)
QR552 (REC: ON)
D.A. REC 12V
P002
L AZIMUTH HEAD
R AZIMUTH HEAD
AUDIO HEAD-R (26μm)
AUDIO HEAD-L (26μm)
HEAD AMP C.B.A. (VEP05097B)
IC4502 (BA7711S)
VR4501
LCH FREQ.
LIMITTER
AMP
V.C.O
HOLD
PHASE COMPARATOR
LIMITTER
VR4504
VR4506
P.B LEVEL
VR4509
RCH FREQ.
+B
DEVIATION (100KHz)
H. SW (30Hz)
60°
AUDIO H. SW (30Hz)
TIMING OF H. SW AND AUDIO H. SW
FL4505
1.3MHz B.P.F
1.7MHz B.P.F
TP4511
REG 5V
AUDIO MUTE
VR4505
VR4510
AUDIO H. SW
IC4503 (AN3920K)
VARIABLE AMP
SW
RF AMP
FF
M.M.V (1)
M.M.V (2)
TRIGGER PULSE GENERATOR (1)
TRIGGER PULSE GENERATOR (2)
TRIGGER PULSE GENERATOR (3)
FREQUENCY DOUBLER
D.O.C DETECTOR
FM/LINEAR DETECTOR
QR4508
H. SW
P4501 14
FROM SERVO
ENVE LEVEL
P4501 20
TO LEVEL METER
(7058LS)
(LECTOR)
QR4509
MODE SELECT
P4501 11
X2 Ⓗ
P4501 12
QR4510 QR4511
+12V
P4501 23
AUDIO OUT Ⓗ
RCH Ⓛ
P4501 4
TO LEVEL METER
LCH Ⓛ
P4501 5
TO LEVEL METER
AUDIO MUT Ⓗ
P4501 18
FROM SYSTEM CONTROL
A-DUB PAUSE Ⓗ
P4501 22
MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE

DIGITAL BLOCK DIAGRAM


VIDEO IN
P3201 3
FL3201
B.P.F
IC3205 (AN6366NK)
ACC
FL3202
L.P.F.
VR3203 COMB
COMB FILTER
DL1
Q3213.3215
AMP
VR3204 C LEVEL
MIX
Q3206.3207
Q3208.3209
AMP
VR3205 A→D LEVEL
TP3203
P9004 3
Q9006
AMP
A/D CONVERTER
AD0
AD1
AD2
AD3
AD4
AD5
14.3MHz
6bit
IC9011 (MB40576) AD CONVERTER
DELAY
IC9010 (MN52060VZE)
Y+C
DELAY
Y
L.P.F.
GRAY FRAME
MULTI. SC.BIT CANCEL
DECREMENT
SERIAL/ PARALLEL
SERIAL/ PARALLEL
S/H
GRAPHIC ART
B.P.F.
C
GRAY FRAME
DECREMENT CHROMA DEMODU
U(B-Y)
V(R-Y)
S/H
L.P.F.
S/H
L.P.F.
CHROMA MODU.
Y/C MIX
Y+C
6bit
DA0
DA1
DA2
DA3
DA4
DA5
j d k c i b a e h g f
YA0～YA5.YB0～YB5.YC0～YC5.YD0～YD5
LUMINANCE 6BIT ×4 DATA LINE
U0～U5
B-Y 6BIT DATA LINE
V0～V5
R-Y 6BIT DATA LINE
PHASE VR9001
PHASE COMP.
IC9006 (MN3106)
PLL
IC9007 (μPD74HC00C)
4fsc=14.32MHz
X9001
OSC1
OSC2
4fsc Ⓗ
IC6001 (MN15362VBR)
SERIAL DATA
SERIAL CLOCK
CAP ON.OFF RST
CATALOG Ⓗ
AUDIO MUTE Ⓛ
P9003 5
P9003 4
P9003 2
P9003 3
P9003 7
P9003 6
IC9002
AMP
AMP
IC9002
QR6052
TO SERVO IC202-23PIN
D7542
D7547
P9006 1
P9006 2
D7546
SERIAL DATA
SERIAL CLOCK
CAP ON IN
CATALOG
A-MUTE Ⓗ
F.A.OUT
CATALOG LED Ⓗ
DIGITAL LED Ⓗ
IC9004 (MN15542)
DIGITAL SERIAL CLK
DIGITAL SERIAL DATA
AFC FREE RUN
EE Ⓗ
TUNER Ⓛ
a b c d e f g h i j k
4fsc
3.58MHz
WRITE ENABLE Ⓛ
HOLD STROBE
SHIFT STROBE
READ STROBE
BIT CANCEL 2
BIT CANCEL 1
BIT CANCEL 0
MOSAIC Ⓛ
GRAY FRAME Ⓛ
MULTI WRITE Ⓗ
RAS
CAS
A0
A7
OE
WE
IC9009 (MN52040VZF)

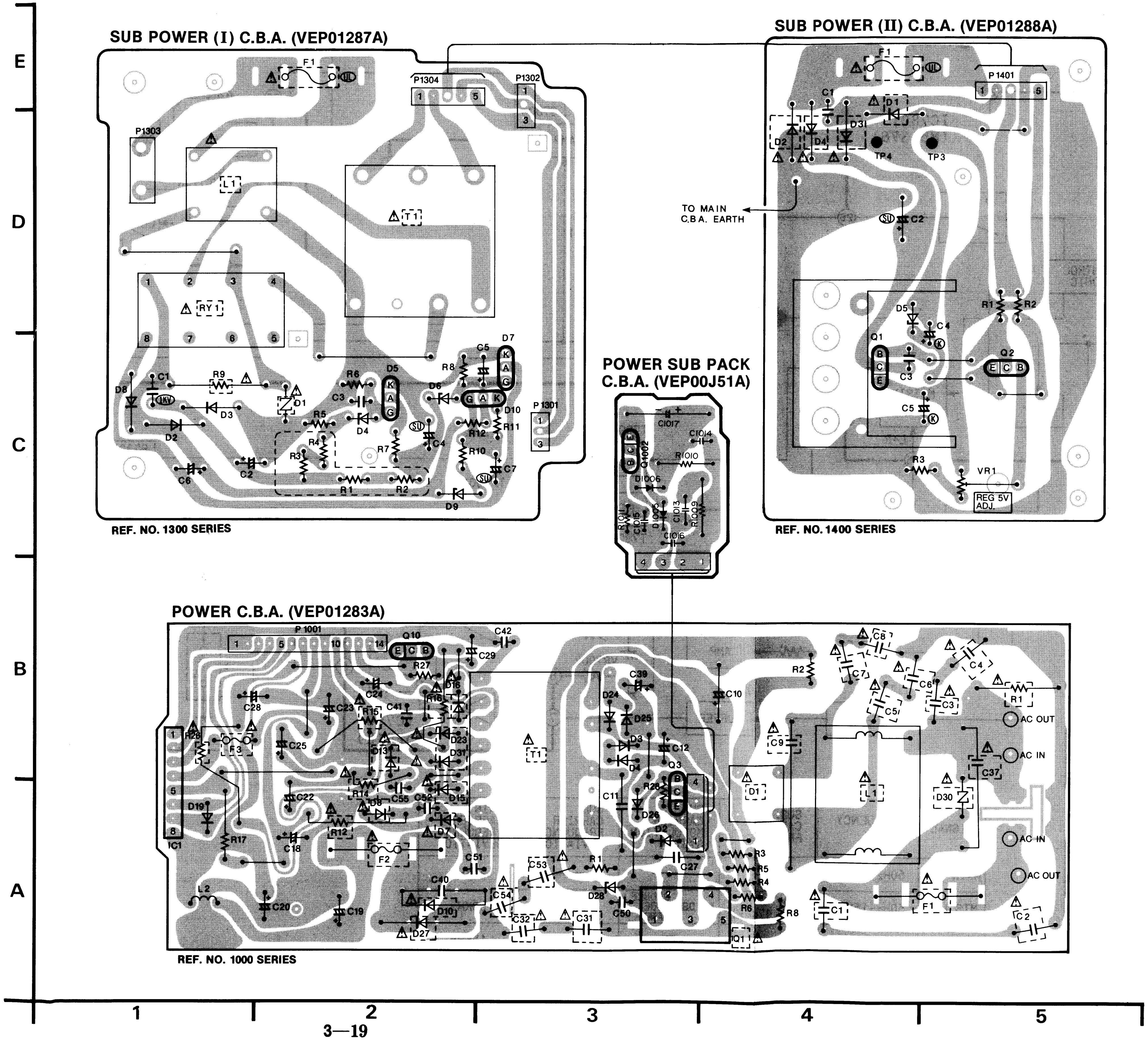

IC9010 (MN52060VZE)
VERTER
AD0
AD1
AD2
AD3
AD4
AD5
6bit
14.3MHz
11
0576)
ONVERTER
Y+C
DELAY
B.P.F.
Y
C
L.P.F.
GRAY FRAME
GRAY FRAME
DECREMENT
MULTI. SC.BIT CANCEL
SERIAL/ PARALLEL
SERIAL/ PARALLEL
S/H
GRAPHIC ART
DECREMENT CHROMA DEMODU
U(B-Y)
V(R-Y)
S/H
L.P.F.
S/H
L.P.F.
CHROMA MODU.
Y/C MIX
Y+C
DELAY
07
74HC00C)
4fsc=14.32MHz
DA0
DA1
DA2
DA3
DA4
DA5
6bit
D/A CONVERTER
IC9012 (TD6713P) D/A CONVERTER
Q9016 Q9017
AMP
L9016.9017 C9071.9072 C9073
L.P.F.
Q9018
BUFFER
P9004 1
VR3206 D→A LEVEL
IC3202 (MN4066B)
NORMAL
DIGITAL
Q3201
BUFFER
P3201 1
VIDEO OUT
P3203 6
DIGITAL Ⓗ
TP3204
MEMORIES (MN41432) 128KBIT ×9
YA0～YA5.YB0～YB5.YC0～YC5.YD0～YD5
LUMINANCE 6BIT ×4 DATA LINE
U0～U5
B-Y 6BIT DATA LINE
V0～V5
R-Y 6BIT DATA LINE
IC9021
IC9020
IC9019
IC9018
IC9017
IC9016
IC9015
IC9014
IC9013
ADDRESS BUS AND MODE DATA LINE
a b c d e f g h i j k
4fsc
3.58MHz
WRITE ENABLE Ⓛ
HOLD STROBE
SHIFT STROBE
READ STROBE
BIT CANCEL 2
BIT CANCEL 1
BIT CANCEL 0
MOSAIC Ⓛ
GRAY FRAME Ⓛ
MULTI WRITE Ⓗ
RAS
CAS
A0
A7
OE
WE
c Ⓗ
TAL SERIAL CLK
L SERIAL DATA
AFC FREE RUN
EE Ⓗ
TUNER Ⓛ
MN15542)
IC9009 (MN52040VZF)

DECODER BLOCK DIAGRAM


T7305
L.P.F. 2FH
VR7304
TP7302
15
28
IC7301 (M51376)
SAP
P7304 6
19
SAP LED
AUDIO IN
P7304 11
Q7301 Q7308
AMP
T7301
LPF 5FH
13
SAP DET
TP7303
VR7305
1
V.C.O.
CONTROL LOGIC
T7302
L.P.F. 3FH
4
MTS DET
MTS
P7304 7
11
MTS LED
CONV
MATRIX
L-R
R
L
L+R
26
34
32
33
6
7
25
35
P7305 2
P7306 2
P7305 4
P7306 4
TP7311
Q7305
AMP
Q7306
AMP
IC7304
7
5
6
REF.V.
VR7309
20
19
18
17
16
15
RMS-B
CCA
AMP-B
IC7303 (AN6291)
(NOISE REDUCTION)
RMS-A
CCA
AMP-A
3
4
5
6
7
8
Q7309
AMP
T7901
FILTER
TP7902
P7304 3
AUDIO(R)
TP7901
FILTER
T7902
P7304 4
AUDIO(L)
TP7903
P7304 1
NORMAL AUDIO
VR7303
T7303
L.P.F. 2FH
VR7302
Q7310
AMP
T7304
L.P.F. 2FH
Q7302
BUFFER
VR7901
VR7902
2
3
6
7
5
IC7901 (M5201L)
Q7901
P7304 5
AUDIO DEFEAT
MAIN CARRIER DEVIATION
KHz
50
25
15
0
50KHz
25KHz
MTS 2(L-R) 50Hz-15KHz AM-FM-DSB
PILOT 5KHz
MAIN L+R 50Hz-15KHz FM
15KHz
SAP SUB 50Hz-10KHz FM-FM
FH
2FH
3FH
4FH
5FH
6FH
15.73KHz
31.47KHz
47.19KHz
78.67KHz
BASE BAND FREQUENCY
FM=15.73KHz

SIGNAL	FREQUENCY BAND	SUB CARRIER FREQUENCY	SUB CARRIER MODULATION SYSTEM	SUB CARRIER FREQUENCY DEVIATION	MAIN CARRIER FREQUENCY DEVIATION
MAIN L+R	50Hz-15KHz	——	——	——	25KHz
MTS L-R	50Hz-15KHz	2FH (31.47KHz)	AM DSB DOUBLE SIDE BAND	15KHz	50KHz
SAP SUB	50Hz-10KHz	5FH (78.65KHz)	FM	10KHz	15KHz
PILOT	——	FH (15.73KHz)	——	——	5KHz

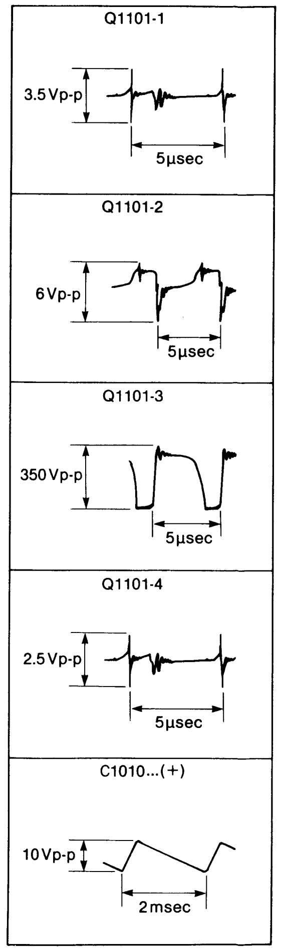
POWER C.B.A. (VEP01283A), POWER SUB PACK C.B.A. (VEP00J51A), SUB POWER (I) C.B.A. (VEP01287A) & SUB POWER (II) C.B.A. (VEP01288A)


SUB POWER (I) C.B.A. (VEP01287A)
REF. NO. 1300 SERIES
SUB POWER (II) C.B.A. (VEP01288A)
REF. NO. 1400 SERIES
TO MAIN C.B.A. EARTH
TP4
TP3
REG 5V ADJ.
VR1
POWER SUB PACK C.B.A. (VEP00J51A)
POWER C.B.A. (VEP01283A)
REF. NO. 1000 SERIES
P1001
P1301
P1302
P1303
P1304
P1401
AC OUT
AC IN
AC IN
AC OUT
E
D
C
B
A
1
2
3
4
5

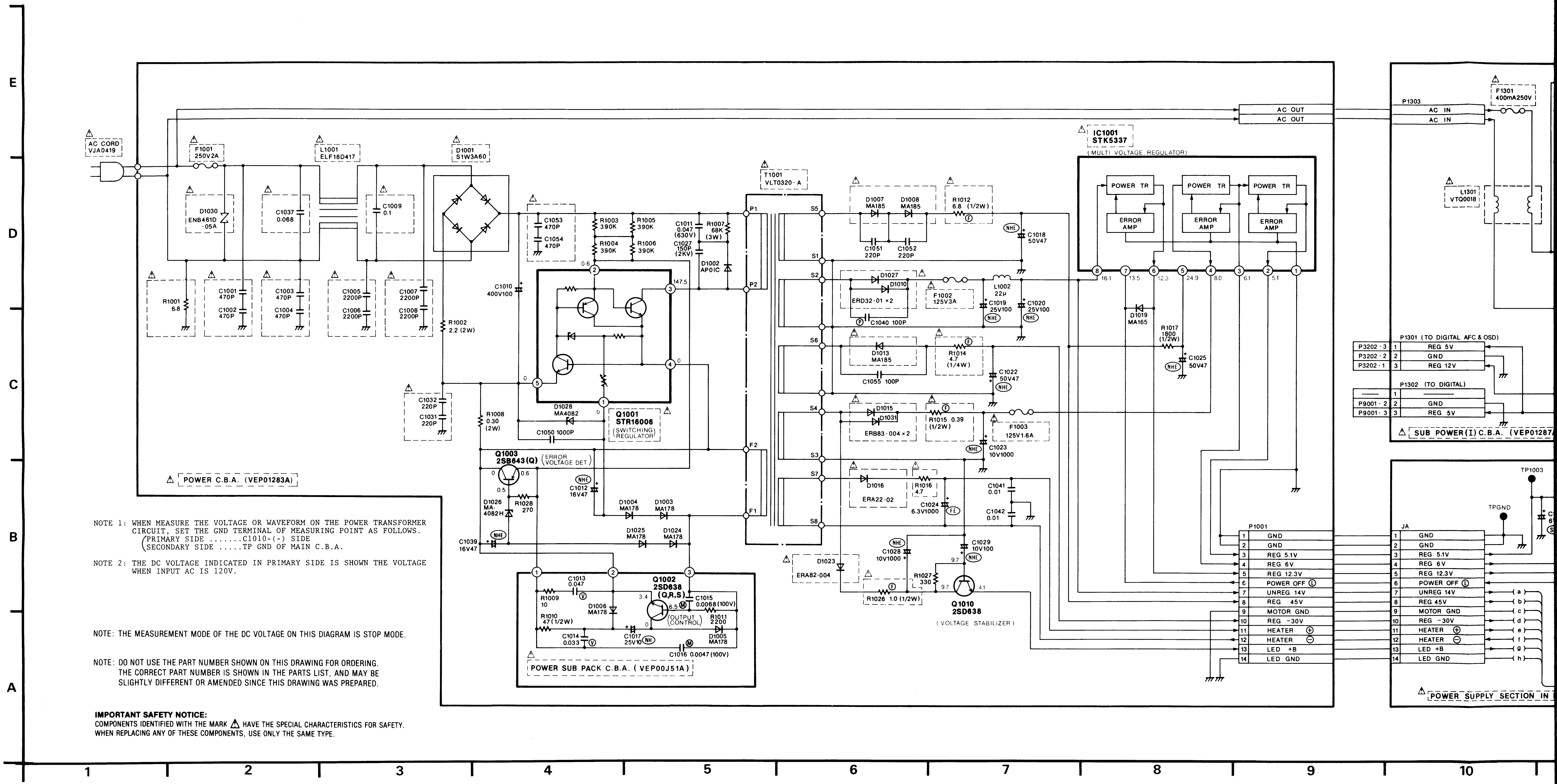
POWER, POWER SUB PACK, SUB POWER (I) & SUB POWER (II) C.B.A.	
Transistor	
Q1001 Q1002 Q1003 Q1010 Q1401 Q1402	A-4 C-3 B-3 B-2 C-4 C-5
Integrated Circuit	
IC1001	A-1
Test Point	
TP1403 TP1404	D-5 D-4
Adjustment	
VR1401	C-5

ADDRESS INFORMATION

POWER (Q1101)



POWER, POWER SUB PACK, SUB POWER (I)・(II) & POWER SUPPLY Section SCHEMATIC DIAGRAM


E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
AC CORD VJA0419
F1001 250V2A
L1001 ELF18D417
D1001 S1W3A60
D1030 ENB461D-05A
C1037 0.068
C1009 0.1
R1001 6.8
C1001 470P
C1002 470P
C1003 470P
C1004 470P
C1005 2200P
C1006 2200P
C1007 2200P
C1008 2200P
R1002 2.2 (2W)
C1053 470P
C1054 470P
R1003 390K
R1004 390K
R1005 390K
R1006 390K
C1011 0.047 (630V)
C1027 150P (2KV)
R1007 68K (3W)
D1002 AP01C
C1010 400V100
C1032 220P
C1031 220P
R1008 0.30 (2W)
D1028 MA4082
C1050 1000P
Q1001 STR16006 (SWITCHING REGULATOR)
Q1003 2SB643(Q) (ERROR VOLTAGE DET)
C1012 16V47
D1026 MA-4082H
R1028 270
C1039 16V47
D1004 MA178
D1003 MA178
D1025 MA178
D1024 MA178
POWER C.B.A. (VEP01283A)
C1013 0.047
R1009 10
R1010 47 (1/2W)
D1006 MA178
C1014 0.033
C1017 25V10
Q1002 2SD638 (Q,R,S) (OUTPUT CONTROL)
C1015 0.0068(100V)
R1011 2200
D1005 MA178
C1016 0.0047(100V)
POWER SUB PACK C.B.A. (VEP00J51A)
T1001 VLT0320-A
P1
P2
F2
F1
S5
S1
S2
S6
S4
S3
S7
S8
D1007 MA185
D1008 MA185
C1051 220P
C1052 220P
R1012 6.8 (1/2W)
C1018 50V47
D1027
D1010
ERD32-01 ×2
C1040 100P
F1002 125V3A
L1002 22μ
C1019 25V100
C1020 25V100
D1013 MA185
C1055 100P
R1014 4.7 (1/4W)
C1022 50V47
D1015
D1031
ERB83-004 ×2
R1015 0.39 (1/2W)
F1003 125V1.6A
C1023 10V1000
D1016
ERA22-02
R1016 4.7
C1024 6.3V1000
C1041 0.01
C1042 0.01
D1023
ERA82-004
C1028 10V1000
C1029 10V100
R1027 330
R1026 1.0 (1/2W)
Q1010 2SD638 (VOLTAGE STABILIZER)
IC1001 STK5337 (MULTI VOLTAGE REGULATOR)
POWER TR
ERROR AMP
D1019 MA165
R1017 1800 (1/2W)
C1025 50V47
AC OUT
AC OUT
P1001
1 GND
2 GND
3 REG 5.1V
4 REG 6V
5 REG 12.3V
6 POWER OFF Ⓛ
7 UNREG 14V
8 REG 45V
9 MOTOR GND
10 REG -30V
11 HEATER ⊕
12 HEATER ⊖
13 LED +B
14 LED GND
P1303
AC IN
AC IN
F1301 400mA250V
L1301 VTQ0018
P1301 (TO DIGITAL AFC & OSD)
P3202-3 1 REG 5V
P3202-2 2 GND
P3202-1 3 REG 12V
P1302 (TO DIGITAL)
P9001-2 2 GND
P9001-3 3 REG 5V
SUB POWER (I) C.B.A. (VEP01287
TP1003
TPGND
JA
1 GND
2 GND
3 REG 5.1V
4 REG 6V
5 REG 12.3V
6 POWER OFF Ⓛ
7 UNREG 14V
8 REG 45V
9 MOTOR GND
10 REG -30V
11 HEATER ⊕
12 HEATER ⊖
13 LED +B
14 LED GND
POWER SUPPLY SECTION IN

NOTE 1: WHEN MEASURE THE VOLTAGE OR WAVEFORM ON THE POWER TRANSFORMER CIRCUIT, SET THE GND TERMINAL OF MEASURING POINT AS FOLLOWS.
(PRIMARY SIDE ....C1010-(-) SIDE
(SECONDARY SIDE .....TP GND OF MAIN C.B.A.

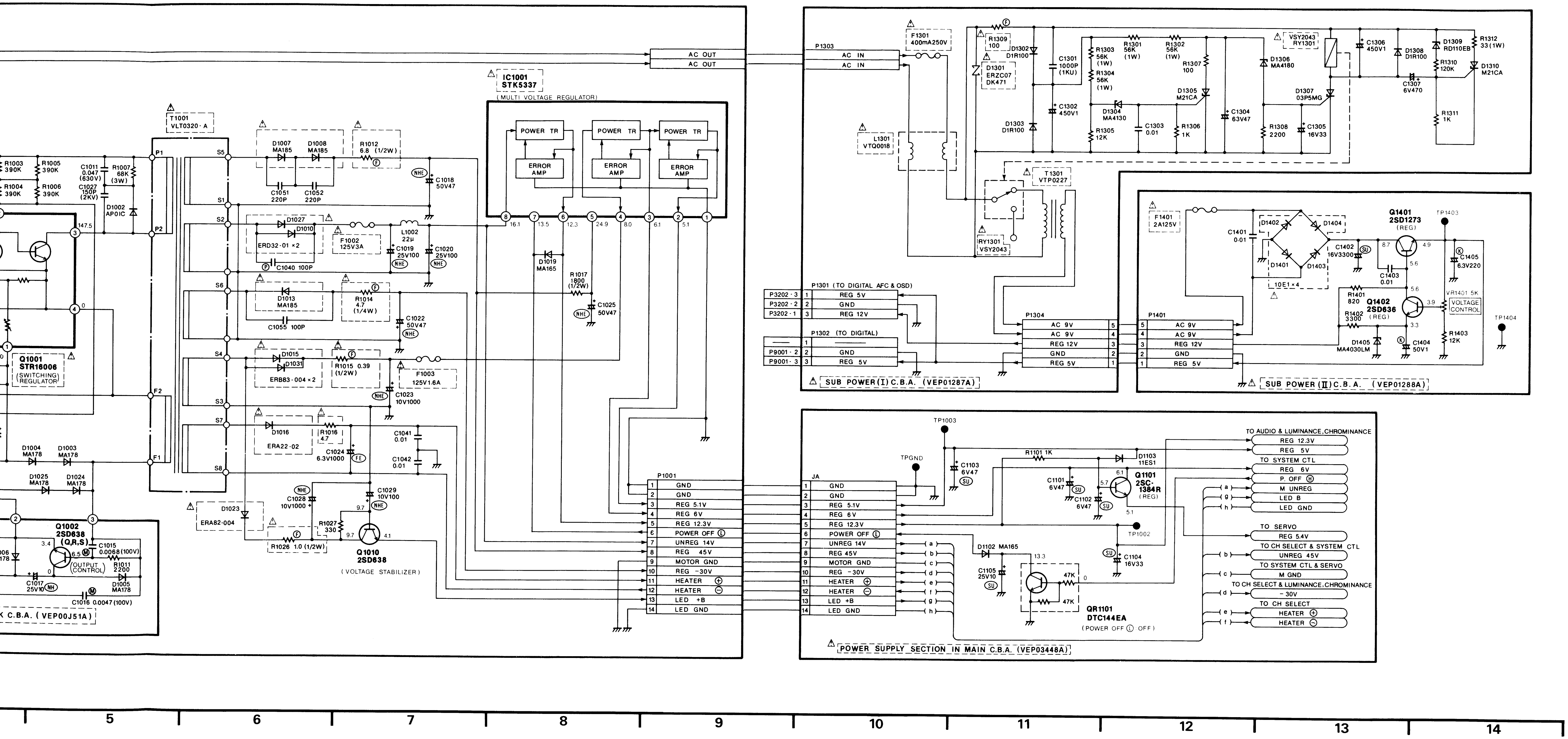
NOTE 2: THE DC VOLTAGE INDICATED IN PRIMARY SIDE IS SHOWN THE VOLTAGE WHEN INPUT AC IS 120V.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

WER SUPPLY Section SCHEMATIC DIAGRAM


AC OUT
AC OUT
IC1001
STK5337
(MULTI VOLTAGE REGULATOR)
POWER TR
ERROR AMP
T1001
VLT0320 - A
Q1001
STR16006
(SWITCHING REGULATOR)
Q1002
2SD638
(Q,R,S)
(OUTPUT CONTROL)
Q1010
2SD638
(VOLTAGE STABILIZER)
K C.B.A. (VEP00J51A)
P1001
GND
GND
REG 5.1V
REG 6V
REG 12.3V
POWER OFF Ⓛ
UNREG 14V
REG 45V
MOTOR GND
REG -30V
HEATER ⊕
HEATER ⊖
LED +B
LED GND
P1303
AC IN
AC IN
F1301
400mA250V
L1301
VTQ0018
T1301
VTP0227
RY1301
VSY2043
P1301 (TO DIGITAL AFC & OSD)
REG 5V
GND
REG 12V
P3202 - 3
P3202 - 2
P3202 - 1
P1302 (TO DIGITAL)
P9001 - 2
P9001 - 3
P1304
AC 9V
AC 9V
REG 12V
GND
REG 5V
SUB POWER (I) C.B.A. (VEP01287A)
P1401
F1401
2A125V
Q1401
2SD1273
(REG)
Q1402
2SD636
(REG)
VR1401 5K
VOLTAGE CONTROL
TP1403
TP1404
SUB POWER (II) C.B.A. (VEP01288A)
JA
TP1003
TPGND
Q1101
2SC-1384R
(REG)
TP1002
QR1101
DTC144EA
(POWER OFF Ⓛ OFF)
TO AUDIO & LUMINANCE, CHROMINANCE
REG 12.3V
REG 5V
TO SYSTEM CTL
REG 6V
P. OFF Ⓗ
M UNREG
LED B
LED GND
TO SERVO
REG 5.4V
TO CH SELECT & SYSTEM CTL
UNREG 45V
TO SYSTEM CTL & SERVO
M GND
TO CH SELECT & LUMINANCE, CHROMINANCE
- 30V
TO CH SELECT
HEATER ⊕
HEATER ⊖
POWER SUPPLY SECTION IN MAIN C.B.A. (VEP03448A)
5
6
7
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14

SYSTEM CONTROL Section SCHEMATIC DIAGRAM

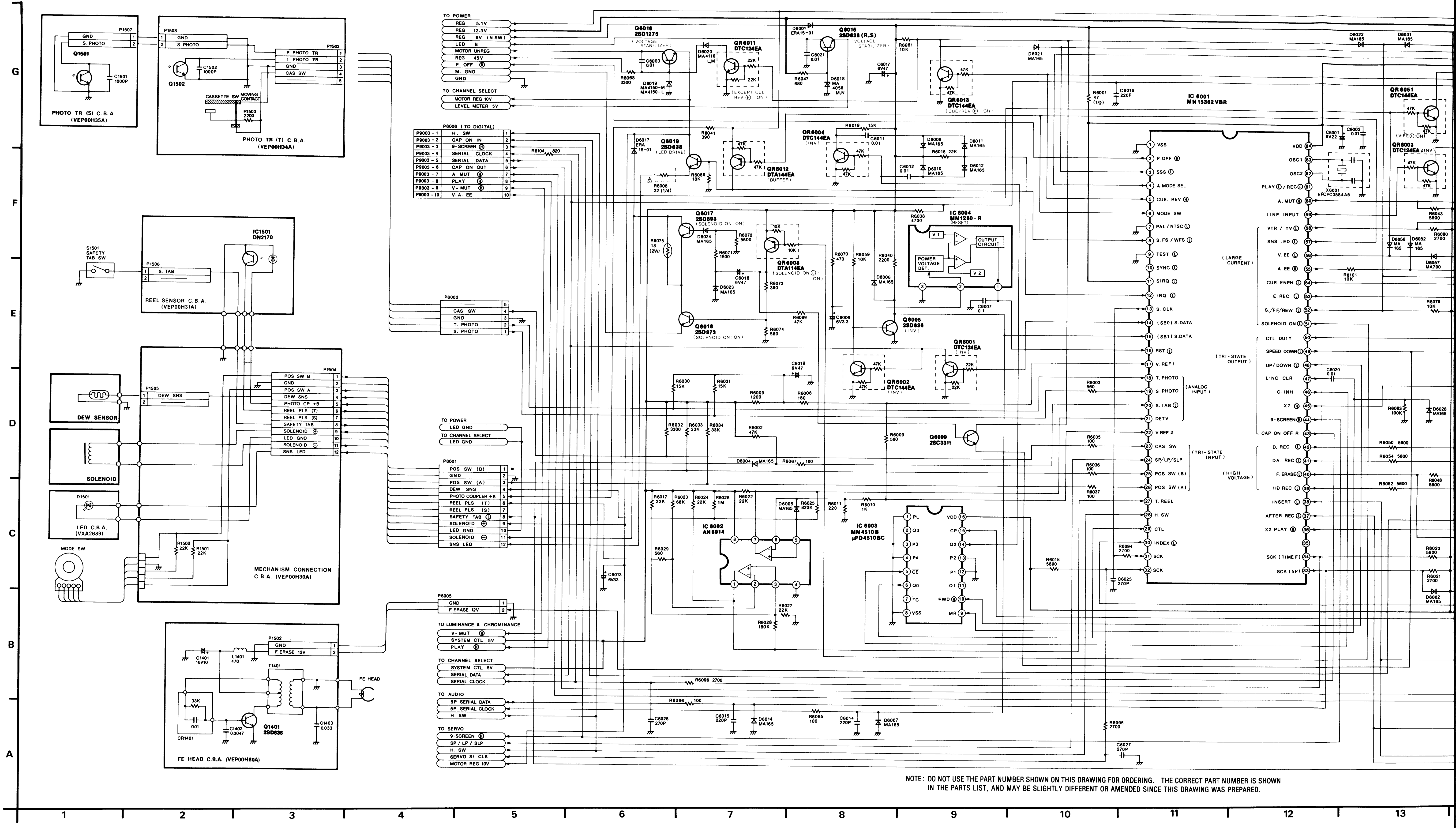
PHOTO TR (S) C.B.A. (VEP00H35A)
Q1501
C1501 1000P
P1507
GND
S. PHOTO
P1508
Q1502
C1502 1000P
CASSETTE SW
MOVING CONTACT
R1503 2200
PHOTO TR (T) C.B.A. (VEP00H34A)
P1503
P PHOTO TR
T PHOTO TR
CAS SW
S1501 SAFETY TAB SW
IC1501 DN2170
P1506
S. TAB
REEL SENSOR C.B.A. (VEP00H31A)
DEW SENSOR
P1505
DEW SNS
SOLENOID
D1501
LED C.B.A. (VXA2689)
MODE SW
R1502 22K
R1501 22K
MECHANISM CONNECTION C.B.A. (VEP00H30A)
P1504
POS SW B
POS SW A
PHOTO CP +B
REEL PLS (T)
REEL PLS (S)
SAFETY TAB
SOLENOID ⊕
LED GND
SOLENOID ⊖
SNS LED
P1502
F.ERASE 12V
C1401 16V10
L1401 470
T1401
FE HEAD
33K
0.01
C1402 0.0047
Q1401 2SD636
C1403 0.033
CR1401
FE HEAD C.B.A. (VEP00H60A)
TO POWER
REG 5.1V
REG 12.3V
REG 6V (N.SW)
LED B
MOTOR UNREG
REG 45V
P. OFF Ⓗ
M. GND
TO CHANNEL SELECT
MOTOR REG 10V
LEVEL METER 5V
P6006 (TO DIGITAL)
P9003-1 H. SW
P9003-2 CAP ON IN
P9003-3 9-SCREEN Ⓗ
P9003-4 SERIAL CLOCK
P9003-5 SERIAL DATA
P9003-6 CAP ON OUT
P9003-7 A MUT Ⓗ
P9003-8 PLAY Ⓗ
P9003-9 V-MUT Ⓗ
P9003-10 V. A. EE
R6104 820
P6002
CAS SW
T. PHOTO
S. PHOTO
TO POWER
LED GND
TO CHANNEL SELECT
LED GND
P6001
POS SW (B)
POS SW (A)
DEW SNS
PHOTO COUPLER +B
REEL PLS (T)
REEL PLS (S)
SAFETY TAB Ⓛ
SOLENOID ⊕
LED GND
SOLENOID ⊖
SNS LED
P6005
F.ERASE 12V
TO LUMINANCE & CHROMINANCE
V-MUT
SYSTEM CTL 5V
PLAY Ⓗ
TO CHANNEL SELECT
SYSTEM CTL 5V
SERIAL DATA
SERIAL CLOCK
TO AUDIO
SP SERIAL DATA
SP SERIAL CLOCK
H. SW
TO SERVO
9-SCREEN Ⓗ
SP / LP / SLP
H. SW
SERVO SI CLK
MOTOR REG 10V
Q6016 2SD1275 (VOLTAGE STABILIZER)
C6003 0.01
R6068 3300
D6019 MA4150-M MA4150-L
D6020 MA4110
QR6011 DTC124EA
(EXCEPT CUE REV Ⓗ ON)
D6001 ERA15-01
Q6015 2SD638 (R,S) (VOLTAGE STABILIZER)
C6021 0.01
R6047 680
D6018 MA4056 M,N
R6081 10K
C6017 6V47
D6021 MA165
QR6013 DTC144EA (CUE/REV Ⓗ ON)
R6001 47 (1/2)
C6016 220P
IC 6001 MN15362VBR
D6022 MA165
D6031 MA165
QR6051 DTC144EA
(V-EE Ⓛ ON)
QR6003 DTC124EA (INV)
D6017 ERA 15-01
Q6019 2SD638 (LED DRIVE)
R6041 390
R6069 10K
R6006 22 (1/4)
QR6012 DTA144EA (BUFFER)
QR6004 DTC144EA (INV)
R6019 15K
C6011 0.01
C6012 0.01
D6009 MA165
R6016 22K
D6010 MA165
D6011 MA165
D6012 MA165
Q6017 2SD893 (SOLENOID ON: ON)
D6024 MA165
R6072 5600
R6071 1500
R6075 18 (2W)
C6018 6V47
D6023 MA165
QR6005 DTA114EA (SOLENOID ON Ⓛ ON)
R6073 390
R6070 470
R6059 10K
R6040 2200
D6006 MA165
R6038 4700
IC 6004 MN1280-R (RESET)
OUTPUT CIRCUIT
POWER VOLTAGE DET.
C6007 0.1
C6006 6V3.3
Q6018 2SD973 (SOLENOID ON: ON)
R6099 47K
R6074 560
Q6005 2SD636 (INV)
QR6001 DTC124EA (INV)
QR6002 DTC144EA (INV)
C6019 6V47
R6030 15K
R6031 15K
R6009 1200
R6008 180
R6032 3300
R6033 33K
R6034 33K
R6002 47K
R6009 560
Q6099 2SC3311
D6004 MA165
R6067 100
R6017 22K
R6023 68K
R6024 22K
R6026 1M
R6022 22K
D6005 MA165
R6025 820K
R6011 220
R6010 1K
IC 6002 AN6914
IC 6003 MN4510B µPD4510BC
PL
Q3
P3
P4
CE
Q0
TC
VSS
VDD
CP
Q2
P2
P1
Q1
FWD Ⓗ
MR
R6029 560
C6013 6V33
R6027 22K
R6028 180K
R6018 5600
R6096 2700
R6086 100
C6026 270P
C6015 220P
D6014 MA165
R6085 100
C6014 220P
D6007 MA165
R6095 2700
C6027 270P
R6003 560
R6035 100
R6036 100
R6037 100
R6094 2700
C6025 270P
VSS
P. OFF Ⓗ
SSS Ⓛ
A.MODE SEL
CUE. REV Ⓗ
MODE SW
PAL / NTSC Ⓛ
S. FS / WFS Ⓛ
TEST Ⓛ
SYNC Ⓛ
SIRQ Ⓛ
IRQ Ⓛ
S. CLK
(SB0) S.DATA
(SB1) S.DATA
RST Ⓛ
V. REF 1
T. PHOTO
S. PHOTO
S. TAB Ⓛ
DETV
V REF 2
CAS SW
SP/LP/SLP
POS SW (B)
POS SW (A)
T. REEL
H. SW
CTL
INDEX Ⓛ
SCK
SCK
(LARGE CURRENT)
(TRI-STATE OUTPUT)
(ANALOG INPUT)
(TRI-STATE INPUT)
(HIGH VOLTAGE)
VDD
OSC1
OSC2
PLAY Ⓛ / REC Ⓛ
A. MUT Ⓗ
LINE INPUT
VTR / TV Ⓛ
SNS LED Ⓛ
V. EE Ⓛ
A. EE Ⓗ
CUR ENPH Ⓛ
E. REC Ⓛ
S/FF/REW Ⓛ
SOLENOID ON Ⓛ
CTL DUTY
SPEED DOWN Ⓛ
UP/DOWN Ⓛ
LINC CLR
C. INH
X7
9-SCREEN Ⓗ
CAP ON OFF R
D. REC Ⓛ
DA. REC Ⓛ
F. ERASE Ⓛ
HD REC Ⓛ
INSERT Ⓛ
AFTER REC Ⓛ
X2 PLAY Ⓗ
SCK (TIME F)
SCK (SP)
C6001 6V22
C6002 0.01
X6001 EFOFC3584A5
C6020 0.01
R6043 5600
R6080 2700
D6056 MA165
D6052 MA165
D6057 MA700
R6101 10K
R6079 10K
R6083 100K
D6028 MA165
R6050 5600
R6054 5600
R6052 5600
R6048 5600
R6020 5600
R6021 2700
D6002 MA165
G
F
E
D
C
B
A
1
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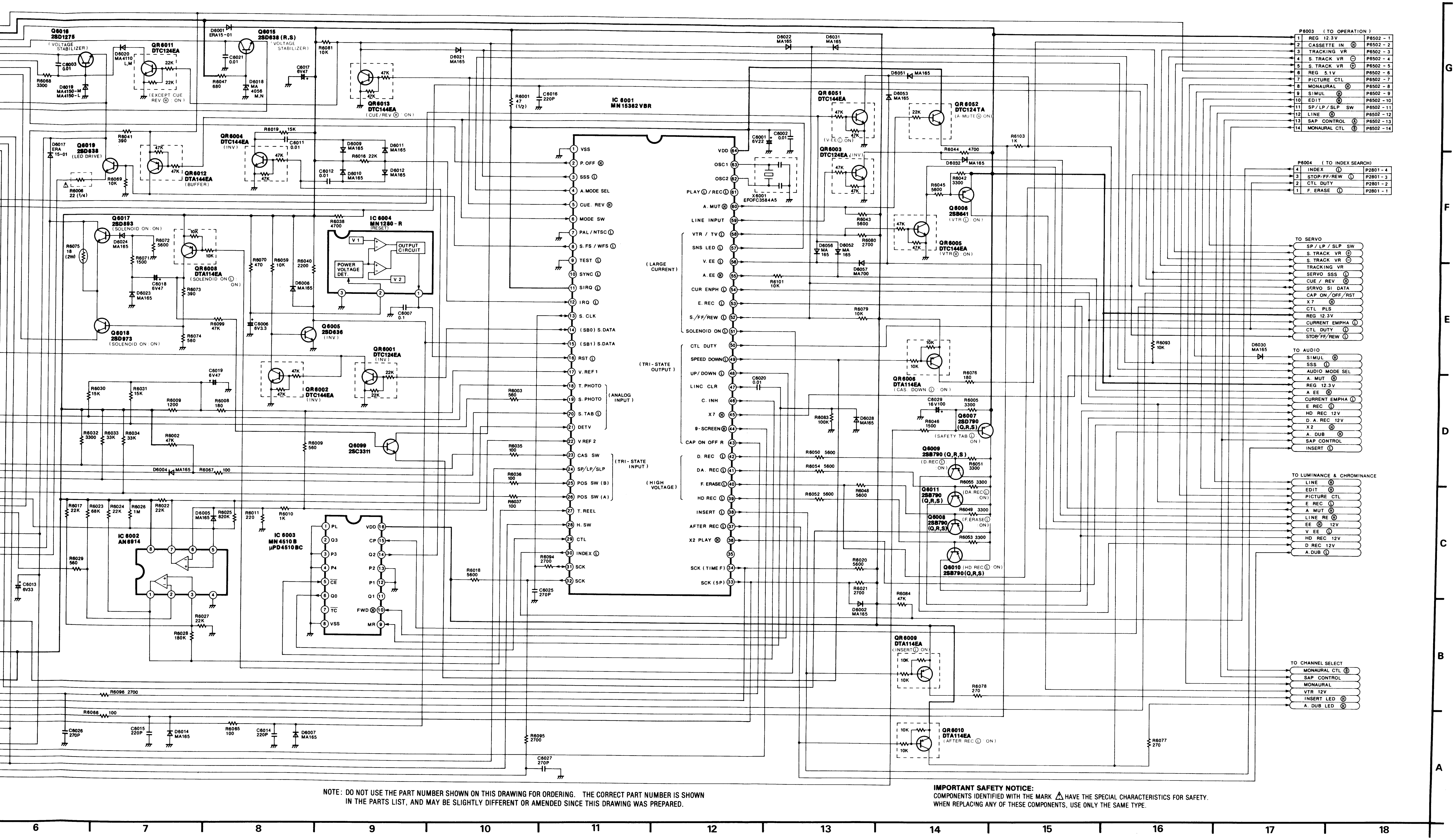
IC 6001 MN15362VBR
IC 6002 AN6914
IC 6003 MN4510B µPD4510BC
IC 6004 MN1280-R (RESET)
Q6016 2SD1275 (VOLTAGE STABILIZER)
Q6015 2SD638(R,S) (VOLTAGE STABILIZER)
QR6011 DTC124EA
QR6013 DTC144EA (CUE/REV Ⓗ ON)
Q6019 2SD638 (LED DRIVE)
QR6012 DTA144EA (BUFFER)
QR6004 DTC144EA (INV)
Q6017 2SD893 (SOLENOID ON: ON)
QR6008 DTA114EA (SOLENOID ON Ⓛ: ON)
Q6018 2SD973 (SOLENOID ON: ON)
Q6005 2SD636 (INV)
QR6001 DTC124EA (INV)
QR6002 DTC144EA (INV)
Q6099 2SC3311
QR6051 DTC144EA
QR6003 DTC124EA (INV)
QR6052 DTC124TA (A.MUTE Ⓗ ON)
Q6006 2SB641 (VTR Ⓛ: ON)
QR6005 DTC144EA (VTR Ⓗ ON)
QR6006 DTA114EA (CAS DOWN Ⓛ ON)
Q6007 2SD790(Q,R,S) (SAFETY TAB Ⓛ ON)
Q6009 2SB790(Q,R,S) (D.REC Ⓛ ON)
Q6011 2SB790(Q,R,S) (DA.REC Ⓛ ON)
Q6008 2SB790(Q,R,S) (F.ERASE Ⓛ ON)
Q6010 2SB790(Q,R,S) (HD REC Ⓛ ON)
QR6009 DTA114EA (INSERT Ⓛ ON)
QR6010 DTA114EA (AFTER REC Ⓛ ON)
X6001 EFOFC3584A5
P6003 (TO OPERATION)
1 REG 12.3V P6502-1
2 CASSETTE IN Ⓗ P6502-2
3 TRACKING VR P6502-3
4 S. TRACK VR ⊖ P6502-4
5 S. TRACK VR ⊕ P6502-5
6 REG 5.1V P6502-6
7 PICTURE CTL P6502-7
8 MONAURAL Ⓗ P6502-8
9 SIMUL Ⓗ P6502-9
10 EDIT Ⓗ P6502-10
11 SP/LP/SLP SW P6502-11
12 LINE Ⓗ P6502-12
13 SAP CONTROL Ⓐ P6502-13
14 MONAURAL CTL Ⓑ P6502-14
P6004 (TO INDEX SEARCH)
4 INDEX Ⓛ P2801-4
3 STOP/FF/REW Ⓛ P2801-3
2 CTL DUTY P2801-2
1 F. ERASE Ⓛ P2801-1
TO SERVO
TO AUDIO
TO LUMINANCE & CHROMINANCE
TO CHANNEL SELECT
6 7 8 9 10 11 12 13 14 15 16 17 18
G F E D C B A

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SYSTEM CONTROL ICs DC VOLTAGE CHART (SP MODE)

REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	0	0	0	0	4.4	0	0.6	5.2	4.3	5.3	0	5.0	0.3	5.1	5.4	3.0	3.3	3.3	0.5
PLAY	0	0	5.3	0	0	4.4	0	0.6	5.3	4.3	5.3	5.3	5.0	0.3	5.0	5.4	3.0	3.3	3.3	0.5
REC	0	0	5.3	0	0	4.4	0	0.6	5.3	4.2	0	5.3	5.0	0.3	5.1	5.4	3.0	3.3	3.3	0.5
F.F	0	0	5.1	0	0	4.4	0	0.6	5.3	4.3	5.2	5.3	5.0	0.3	5.1	5.4	3.0	3.3	3.3	0.5
REW	0	0	5.1	0	0	4.4	0	0.6	5.2	4.3	5.3	5.2	5.0	0.3	5.1	5.4	3.0	3.3	3.3	0.5

REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	2.1	2.2	0	2.2	5.4	0	0	5.4	5.0	4.9	5.2	5.1	5.0	5.3	0.1	5.3	5.3	12.2	12.2
PLAY	0	2.1	2.2	0	5.4	0	2.7	2.5	2.7	0.3	5.0	5.2	5.1	5.1	5.3	0.1	5.3	5.3	12.2	12.2
REC	0	2.1	2.2	0	3.4	0	2.7	2.5	2.7	0	5.0	5.2	5.1	5.1	5.3	0.2	5.3	5.3	0.3	0.3
F.F	0	2.1	2.2	0	2.2	5.4	2.8	0	2.7	5.1	4.9	5.2	5.1	5.0	0	0.1	5.2	5.3	12.2	12.2
REW	0	2.2	2.2	0	2.2	5.4	2.8	0	2.7	5.1	4.9	5.2	5.1	5.0	0	0.1	5.3	5.3	12.2	12.2

REF. NO.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	12.2	12.2	1.9	0.1	0.1	5.3	5.3	0	0.2	5.3	5.4	0.1	0	0	4.1	0.1	4.4	5.1	0	0.1
PLAY	12.2	12.2	5.3	0.1	0.1	0	5.3	5.3	0.1	5.3	5.4	4.5	0.1	4.0	0	5.2	4.4	5.1	0	0.1
REC	0.3	0.3	5.3	0.2	0.2	0.1	5.3	5.3	0.2	5.3	5.4	4.4	4.6	4.0	4.1	0.1	4.4	0.1	0	0.1
F.F	12.2	12.2	5.3	0	0	0	5.2	5.3	0.1	5.2	5.4	0.1	0.1	0.1	4.1	0.1	4.4	5.1	0	0.1
REW	12.2	12.2	5.3	0	0.1	0	5.2	0	0.1	5.2	5.4	0.1	0.1	0.1	4.1	0.1	4.4	5.1	0	0.1

REF. NO.	IC6001										IC6002									
MODE	61	62	63	64							1	2	3	4	5	6	7	8		
STOP	5.3	2.2	2.4	5.3							5.1	4.8	2.5	0	0	0.4	0	5.4		
PLAY	5.3	2.2	2.4	5.3							2.8	2.6	2.6	0	0	0.4	0	5.4		
REC	5.3	2.2	2.4	5.3							2.8	2.6	2.6	0	0	0.4	0	5.4		
F.F	5.3	2.2	2.4	5.2							2.8	2.3	2.7	0	0	0.4	0	5.4		
REW	5.2	2.1	2.4	5.2							2.8	2.3	2.7	0	0	0.4	0	5.4		

REF. NO.	IC6003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	0	0	0	0	5.3	5.4	5.4	0	0	5.2	0	0	0	5.3	0.5	5.4				
PLAY	0	1.0	0	0	0	2.7	4.8	0	0	5.3	2.1	0	0	2.0	0.4	5.4				
REC	0	1.0	0	0	0.1	2.7	4.8	0	0	5.3	2.1	0	0	2.0	3.1	5.4				
F.F	0	1.1	0	0	0	2.7	4.8	0	0	5.2	2.2	0	0	2.1	0.9	5.4				
REW	0	1.1	0	0	0	2.7	4.8	0	0	0	2.2	0	0	2.1	0.9	5.4				

REF. NO.	IC6004																			
MODE	1	2	3																	
STOP	5.4	5.4	0																	
PLAY	5.4	5.4	0																	
REC	5.4	5.4	0																	
F.F	5.4	5.4	0																	
REW	5.4	5.4	0																	

SYSTEM CONTROL TRANSISTORs DC VOLTAGE CHART (SP MODE)

REF. NO.	Q1401																	
MODE	E	C	B															
STOP	0	0.4	0.3															
PLAY	0	0.4	0.3															
REC	0	11.3	−0.3															
F.F	0	0.4	0.3															
REW	0	0.4	0.3															

REF. NO.	Q6005			Q6006			Q6007			Q6008			Q6009			Q6010		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	5.1	0.1	12.2	12.0	11.4	12.2	12.2	11.5	12.2	0.3	12.2	12.2	0.3	12.2	12.2	0	12.2
PLAY	0	5.0	0.1	12.2	12.2	11.4	12.2	12.2	0	12.2	0.3	12.2	12.2	0.3	12.2	12.2	0	12.2
REC	0	5.1	0.1	12.2	0	12.2	12.2	12.1	11.4	12.0	12.0	11.3	12.0	12.0	11.3	12.1	12.1	11.3
F.F	0	5.1	0.1	12.2	12.0	11.4	12.2	12.2	11.5	12.2	0.3	12.2	12.2	0.3	12.2	12.2	0	12.2
REW	0	5.1	0.1	12.2	12.0	11.4	12.2	12.2	11.5	12.2	0.3	12.2	12.2	0.4	12.2	12.2	0	12.2

REF. NO.	Q6011			Q6015			Q6016			Q6017			Q6018			Q6019		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	12.2	0	12.2	4.1	4.1	4.8	14.4	15.9	15.6	14.4	14.4	5.8	0	14.4	0	0.7	14.4	0.6
PLAY	12.2	0	12.2	3.3	3.3	4.0	10.2	15.6	11.4	10.2	10.2	1.8	0	10.2	0	0.7	10.2	0.6
REC	12.0	12.0	11.3	4.1	4.1	4.8	10.2	15.6	11.4	10.2	10.2	1.7	0	10.2	0	0.7	10.2	0.6
F.F	12.2	0	12.2	4.1	4.1	4.8	14.3	15.8	15.6	14.3	14.4	5.8	0	14.4	0	0.7	14.3	0.6
REW	12.2	0	12.2	4.1	4.1	4.8	14.4	15.9	15.6	14.4	14.3	5.7	0	14.3	0	0.7	14.3	0.6

REF. NO.	QR6001			QR6002			QR6003			QR6004			QR6005			QR6006		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	4.8	0.3	0	0.1	4.8	0	9.9	0	0	5.4	0	0	0	5.1	5.4	5.3	0.2
PLAY	0	4.8	0.4	0	0.1	4.8	0	9.9	0	0	3.3	1.8	0	0	5.1	5.4	5.3	0.1
REC	0	4.8	0.3	0	0.1	4.8	0	9.9	0	0	3.0	1.8	0	12.1	0.1	5.4	5.3	0.2
F.F	0	4.8	0.3	0	0.1	4.8	0	9.9	0	0	3.2	2.1	0	0	5.1	5.4	5.3	0.1
REW	0	4.8	0.3	0	0.1	4.8	0	9.9	0	0	3.2	2.1	0	0	5.1	5.4	5.3	0.1

REF. NO.	QR6008			QR6009			QR6010			QR6011			QR6012			QR6013		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	5.4	0	5.4	5.4	0	5.3	5.4	−0.3	5.3	0	4.9	0.6	5.1	0.6	4.4	0	0.6	0
PLAY	5.4	0	5.4	5.4	0	5.3	5.4	0.1	5.3	0	0.1	3.9	5.1	0.6	4.4	0	3.9	0
REC	5.4	0	5.4	5.4	0	5.3	5.4	0.1	5.3	0	0.1	3.9	5.1	0.6	4.4	0	3.9	0
F.F	5.4	0	5.4	5.4	0	5.3	5.4	0.1	5.2	0	4.9	0.7	5.1	0.6	4.4	0	0.7	0
REW	4.4	0	5.4	5.4	0	5.3	5.4	0	5.3	0	4.9	0.7	5.1	0.6	4.4	0	0.7	0

REF. NO.	QR6051			QR6052														
MODE	E	C	B	E	C	B												
STOP	0	0.7	0.1	0	5.3	0.1												
PLAY	0	5.0	0.1	0	5.3	0.1												
REC	0	0.7	0.1	0	5.3	0.1												
F.F	0	0.7	0.1	0	5.3	0.1												
REW	0	0.7	0.1	0	5.3	0.1												

SYSTEM CONTROL ICs DC VOLTAGE CHART (LP MODE)

REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	0	0	0	0	4.4	0	0.6	5.2	4.3	5.3	0	5.0	0.3	5.1	5.4	3.0	3.3	3.3	0.5
PLAY	0	0	5.3	0	0	4.4	0	0.6	5.3	4.3	5.3	5.3	5.0	0.3	5.0	0	3.0	3.3	3.3	0.5
REC	0	0	4.3	0	0	4.4	0	0.6	5.3	4.2	5.3	5.3	5.0	0.3	5.1	5.4	3.0	3.3	3.3	0.5
F.F	0	0	5.1	0	0	4.4	0	0.6	5.3	4.3	5.2	5.3	5.0	0.3	5.1	5.4	3.0	3.3	3.3	0.5
REW	0	0	5.1	0	0	4.4	0	0.6	5.2	4.3	5.3	5.2	5.0	0.3	5.1	5.4	3.0	3.3	3.3	0.5

REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	2.1	2.2	0	2.2	5.4	0	0	5.4	5.0	4.9	5.2	5.1	5.0	5.3	0.1	5.3	5.3	12.2	12.2
PLAY	0	2.1	2.2	2.2	5.4	0	3.0	2.5	2.7	5.1	5.0	5.2	5.1	5.1	5.3	0.1	5.3	5.3	12.2	12.2
REC	0	2.1	2.2	2.2	5.4	0	2.5	2.5	2.7	0.1	5.0	5.2	5.1	5.1	5.3	0.2	5.3	5.3	0.3	0.3
F.F	0	2.1	2.2	0	2.2	5.4	2.8	0	2.7	5.1	4.9	5.2	5.1	5.0	0	0.1	5.2	5.3	12.2	12.2
REW	0	2.2	2.2	0	2.2	5.4	2.8	0	2.7	5.1	4.9	5.2	5.1	5.0	0	0.1	5.3	5.3	12.2	12.2

REF. NO.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	12.2	12.2	1.9	0.1	0.1	5.3	5.3	0	0.2	5.3	5.4	0.1	0	0	4.1	0.1	4.4	5.1	0	0.1
PLAY	12.2	12.2	5.3	0.1	0.1	0	5.3	5.3	0.1	5.3	5.4	4.5	0.1	4.0	0	5.2	4.4	5.1	0	0.1
REC	0.3	0.3	5.3	0.2	0.2	0.1	5.3	5.3	0.2	5.3	5.4	4.4	4.6	4.0	4.1	0.1	4.4	5.1	0	0.1
F.F	12.2	12.2	5.3	0	0	0	5.2	5.3	0.1	5.2	5.4	0.1	0.1	0.1	4.1	0.1	4.4	5.1	0	0.1
REW	12.2	12.2	5.3	0	0.1	0	5.2	0	0.1	5.2	5.4	0.1	0.1	0.1	4.1	0.1	4.4	5.1	0	0.1

REF. NO.	IC6001										IC6002									
MODE	61	62	63	64							1	2	3	4	5	6	7	8		
STOP	5.3	2.2	2.4	5.3							5.1	4.8	2.5	0	0	0.4	0	5.4		
PLAY	5.3	2.2	2.4	5.3							2.5	2.6	2.6	0	0	0.4	0	5.4		
REC	5.3	2.2	2.4	5.3							2.5	2.6	2.6	0	0	0.4	0	5.4		
F.F	5.3	2.2	2.4	5.2							2.8	2.3	2.7	0	0	0.4	0	5.4		
REW	5.2	2.1	2.4	5.2							2.8	2.3	2.7	0	0	0.4	0	5.4		

REF. NO.	IC6003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	0	0	0	0	5.3	5.4	5.4	0	0	5.2	0	0	0	5.3	0.5	5.4				
PLAY	0	1.2	0	0	0	2.7	4.8	0	0	5.3	2.1	0	0	2.0	0.4	5.4				
REC	0	1.2	0	0	0.1	2.7	4.8	0	0	5.3	2.1	0	0	2.0	3.1	5.4				
F.F	0	1.1	0	0	0	2.7	4.8	0	0	5.2	2.2	0	0	2.1	0.9	5.4				
REW	0	1.1	0	0	0	2.7	4.8	0	0	0	2.2	0	0	2.1	0.9	5.4				

REF. NO.	IC6004																			
MODE	1	2	3																	
STOP	5.4	5.4	0																	
PLAY	5.4	5.4	0																	
REC	5.4	5.4	0																	
F.F	5.4	5.4	0																	
REW	5.4	5.4	0																	

SYSTEM CONTROL TRANSISTORs DC VOLTAGE CHART (LP MODE)

REF. NO.	Q1401																	
MODE	E	C	B															
STOP	0	0.4	0.3															
PLAY	0	0.4	0.3															
REC	0	11.3	−0.3															
F.F	0	0.4	0.3															
REW	0	0.4	0.3															

REF. NO.	Q6005			Q6006			Q6007			Q6008			Q6009			Q6010		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	5.1	0.1	12.2	12.0	11.4	12.2	12.2	11.5	12.2	0.3	12.2	12.2	0.3	12.2	12.2	0	12.2
PLAY	0	5.0	0.1	12.2	12.2	11.4	12.2	12.2	11.5	12.2	0.3	12.2	12.2	0.3	12.2	12.2	0	12.2
REC	0	5.1	0.1	12.2	12.0	12.2	12.2	12.1	11.4	12.0	12.0	11.3	12.0	12.0	11.3	12.1	12.1	11.3
F.F	0	5.1	0.1	12.2	12.0	11.4	12.2	12.2	11.5	12.2	0.3	12.2	12.2	0.3	12.2	12.2	0	12.2
REW	0	5.1	0.1	12.2	12.0	11.4	12.2	12.2	11.5	12.2	0.3	12.2	12.2	0.4	12.2	12.2	0	12.2

REF. NO.	Q6011			Q6015			Q6016			Q6017			Q6018			Q6019		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	12.2	0	12.2	4.1	4.1	4.8	14.4	15.9	15.6	14.4	14.4	5.8	0	14.4	0	0.7	14.4	0.6
PLAY	12.2	0	12.2	2.3	3.3	4.0	10.2	15.6	11.4	10.2	10.2	1.8	0	10.2	0	0.7	10.2	0.6
REC	12.0	12.0	11.3	4.1	4.1	4.8	10.2	15.6	11.4	10.2	10.2	1.7	0	10.2	0	0.7	10.2	0.6
F.F	12.2	0	12.2	4.1	4.1	4.8	14.3	15.8	15.6	14.3	14.4	5.8	0	14.4	0	0.7	14.3	0.6
REW	12.2	0	12.2	4.1	4.1	4.8	14.4	15.9	15.6	14.4	14.3	5.7	0	14.3	0	0.7	14.3	0.6

REF. NO.	QR6001			QR6002			QR6003			QR6004			QR6005			QR6006		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	4.8	0.3	0	0.1	4.8	0	9.9	0	0	5.4	0	0	0	5.1	5.4	5.3	0.2
PLAY	0	4.8	0.4	0	0.1	4.8	0	9.9	0	0	3.3	2.8	0	0	5.1	5.4	5.3	0.1
REC	0	4.8	0.3	0	0.1	4.8	0	9.9	0	0	3.3	2.8	0	0	5.1	5.4	5.3	0.2
F.F	0	4.8	0.3	0	0.1	4.8	0	9.9	0	0	3.2	2.1	0	0	5.1	5.4	5.3	0.1
REW	0	4.8	0.3	0	0.1	4.8	0	9.9	0	0	3.2	2.1	0	0	5.1	5.4	5.3	0.1

REF. NO.	QR6008			QR6009			QR6010			QR6011			QR6012			QR6013		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	5.4	0	5.4	5.4	0	5.3	5.4	−0.3	5.3	0	4.9	0.6	5.1	0.6	4.4	0	0.6	0
PLAY	5.4	0	5.4	5.4	0	5.3	5.4	0.1	5.3	0	0.1	3.9	5.1	0.6	4.4	0	3.9	0
REC	5.4	0	5.4	5.4	0	5.3	5.4	0.1	5.3	0	0.1	3.9	5.1	0.6	4.4	0	3.9	0
F.F	5.4	0	5.4	5.4	0	5.3	5.4	0.1	5.2	0	4.9	0.7	5.1	0.6	4.4	0	0.7	0
REW	4.4	0	5.4	5.4	0	5.3	5.4	0	5.3	0	4.9	0.7	5.1	0.6	4.4	0	0.7	0

REF. NO.	QR6051			QR6052														
MODE	E	C	B	E	C	B												
STOP	0	0.7	0.1	0	5.3	0.1												
PLAY	0	5.0	0.1	0	5.3	0.1												
REC	0	0.7	0.1	0	5.3	0.1												
F.F	0	0.7	0.1	0	5.3	0.1												
REW	0	0.7	0.1	0	5.3	0.1												

SYSTEM CONTROL ICs DC VOLTAGE CHART (LP MODE)

REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	0	0	0	0	4.4	0	0.6	5.2	4.3	5.3	0	5.0	0.3	5.1	5.4	3.0	3.3	3.3	0.5
PLAY	0	0	5.3	0	0	4.4	0	0.6	5.3	4.3	5.3	5.3	5.0	0.3	5.0	0	3.0	3.3	3.3	0.5
REC	0	0	4.3	0	0	4.4	0	0.6	5.3	4.2	5.3	5.3	5.0	0.3	5.1	5.4	3.0	3.3	3.3	0.5
F.F	0	0	5.1	0	0	4.4	0	0.6	5.3	4.3	5.2	5.3	5.0	0.3	5.1	5.4	3.0	3.3	3.3	0.5
REW	0	0	5.1	0	0	4.4	0	0.6	5.2	4.3	5.3	5.2	5.0	0.3	5.1	5.4	3.0	3.3	3.3	0.5

REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	2.1	2.2	0	2.2	5.4	0	0	5.4	5.0	4.9	5.2	5.1	5.0	5.3	0.1	5.3	5.3	12.2	12.2
PLAY	0	2.1	2.2	2.2	5.4	0	3.0	2.5	2.7	5.1	5.0	5.2	5.1	5.1	5.3	0.1	5.3	5.3	12.2	12.2
REC	0	2.1	2.2	2.2	5.4	0	2.5	2.5	2.7	0.1	5.0	5.2	5.1	5.1	5.3	0.2	5.3	5.3	0.3	0.3
F.F	0	2.1	2.2	0	2.2	5.4	2.8	0	2.7	5.1	4.9	5.2	5.1	5.0	0	0.1	5.2	5.3	12.2	12.2
REW	0	2.2	2.2	0	2.2	5.4	2.8	0	2.7	5.1	4.9	5.2	5.1	5.0	0	0.1	5.3	5.3	12.2	12.2

REF. NO.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	12.2	12.2	1.9	0.1	0.1	5.3	5.3	0	0.2	5.3	5.4	0.1	0	0	4.1	0.1	4.4	5.1	0	0.1
PLAY	12.2	12.2	5.3	0.1	0.1	0	5.3	5.3	0.1	5.3	5.4	4.5	0.1	4.0	0	5.2	4.4	5.1	0	0.1
REC	0.3	0.3	5.3	0.2	0.2	0.1	5.3	5.3	0.2	5.3	5.4	4.4	4.6	4.0	4.1	0.1	4.4	5.1	0	0.1
F.F	12.2	12.2	5.3	0	0	0	5.2	5.3	0.1	5.2	5.4	0.1	0.1	0.1	4.1	0.1	4.4	5.1	0	0.1
REW	12.2	12.2	5.3	0	0.1	0	5.2	0	0.1	5.2	5.4	0.1	0.1	0.1	4.1	0.1	4.4	5.1	0	0.1

REF. NO.	IC6001										IC6002									
MODE	61	62	63	64							1	2	3	4	5	6	7	8		
STOP	5.3	2.2	2.4	5.3							5.1	4.8	2.5	0	0	0.4	0	5.4		
PLAY	5.3	2.2	2.4	5.3							2.5	2.6	2.6	0	0	0.4	0	5.4		
REC	5.3	2.2	2.4	5.3							2.5	2.6	2.6	0	0	0.4	0	5.4		
F.F	5.3	2.2	2.4	5.2							2.8	2.3	2.7	0	0	0.4	0	5.4		
REW	5.2	2.1	2.4	5.2							2.8	2.3	2.7	0	0	0.4	0	5.4		

REF. NO.	IC6003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	0	0	0	0	5.3	5.4	5.4	0	0	5.2	0	0	0	5.3	0.5	5.4				
PLAY	0	1.2	0	0	0	2.7	4.8	0	0	5.3	2.1	0	0	2.0	0.4	5.4				
REC	0	1.2	0	0	0.1	2.7	4.8	0	0	5.3	2.1	0	0	2.0	3.1	5.4				
F.F	0	1.1	0	0	0	2.7	4.8	0	0	5.2	2.2	0	0	2.1	0.9	5.4				
REW	0	1.1	0	0	0	2.7	4.8	0	0	0	2.2	0	0	2.1	0.9	5.4				

REF. NO.	IC6004																			
MODE	1	2	3																	
STOP	5.4	5.4	0																	
PLAY	5.4	5.4	0																	
REC	5.4	5.4	0																	
F.F	5.4	5.4	0																	
REW	5.4	5.4	0																	

SYSTEM CONTROL TRANSISTORs DC VOLTAGE CHART (LP MODE)

REF. NO.	Q1401																	
MODE	E	C	B															
STOP	0	0.4	0.3															
PLAY	0	0.4	0.3															
REC	0	11.3	−0.3															
F.F	0	0.4	0.3															
REW	0	0.4	0.3															

REF. NO.	Q6005			Q6006			Q6007			Q6008			Q6009			Q6010		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	5.1	0.1	12.2	12.0	11.4	12.2	12.2	11.5	12.2	0.3	12.2	12.2	0.3	12.2	12.2	0	12.2
PLAY	0	5.0	0.1	12.2	12.2	11.4	12.2	12.2	11.5	12.2	0.3	12.2	12.2	0.3	12.2	12.2	0	12.2
REC	0	5.1	0.1	12.2	12.0	12.2	12.2	12.1	11.4	12.0	12.0	11.3	12.0	12.0	11.3	12.1	12.1	11.3
F.F	0	5.1	0.1	12.2	12.0	11.4	12.2	12.2	11.5	12.2	0.3	12.2	12.2	0.3	12.2	12.2	0	12.2
REW	0	5.1	0.1	12.2	12.0	11.4	12.2	12.2	11.5	12.2	0.3	12.2	12.2	0.4	12.2	12.2	0	12.2

REF. NO.	Q6011			Q6015			Q6016			Q6017			Q6018			Q6019		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	12.2	0	12.2	4.1	4.1	4.8	14.4	15.9	15.6	14.4	14.4	5.8	0	14.4	0	0.7	14.4	0.6
PLAY	12.2	0	12.2	2.3	3.3	4.0	10.2	15.6	11.4	10.2	10.2	1.8	0	10.2	0	0.7	10.2	0.6
REC	12.0	12.0	11.3	4.1	4.1	4.8	10.2	15.6	11.4	10.2	10.2	1.7	0	10.2	0	0.7	10.2	0.6
F.F	12.2	0	12.2	4.1	4.1	4.8	14.3	15.8	15.6	14.3	14.4	5.8	0	14.4	0	0.7	14.3	0.6
REW	12.2	0	12.2	4.1	4.1	4.8	14.4	15.9	15.6	14.4	14.3	5.7	0	14.3	0	0.7	14.3	0.6

REF. NO.	QR6001			QR6002			QR6003			QR6004			QR6005			QR6006		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	4.8	0.3	0	0.1	4.8	0	9.9	0	0	5.4	0	0	0	5.1	5.4	5.3	0.2
PLAY	0	4.8	0.4	0	0.1	4.8	0	9.9	0	0	3.3	2.8	0	0	5.1	5.4	5.3	0.1
REC	0	4.8	0.3	0	0.1	4.8	0	9.9	0	0	3.3	2.8	0	0	5.1	5.4	5.3	0.2
F.F	0	4.8	0.3	0	0.1	4.8	0	9.9	0	0	3.2	2.1	0	0	5.1	5.4	5.3	0.1
REW	0	4.8	0.3	0	0.1	4.8	0	9.9	0	0	3.2	2.1	0	0	5.1	5.4	5.3	0.1

REF. NO.	QR6008			QR6009			QR6010			QR6011			QR6012			QR6013		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	5.4	0	5.4	5.4	0	5.3	5.4	-0.3	5.3	0	4.9	0.6	5.1	0.6	4.4	0	0.6	0
PLAY	5.4	0	5.4	5.4	0	5.3	5.4	0.1	5.3	0	0.1	3.9	5.1	0.6	4.4	0	3.9	0
REC	5.4	0	5.4	5.4	0	5.3	5.4	0.1	5.3	0	0.1	3.9	5.1	0.6	4.4	0	3.9	0
F.F	5.4	0	5.4	5.4	0	5.3	5.4	0.1	5.2	0	4.9	0.7	5.1	0.6	4.4	0	0.7	0
REW	4.4	0	5.4	5.4	0	5.3	5.4	0	5.3	0	4.9	0.7	5.1	0.6	4.4	0	0.7	0

REF. NO.	QR6051			QR6052														
MODE	E	C	B	E	C	B												
STOP	0	0.7	0.1	0	5.3	0.1												
PLAY	0	5.0	0.1	0	5.3	0.1												
REC	0	0.7	0.1	0	5.3	0.1												
F.F	0	0.7	0.1	0	5.3	0.1												
REW	0	0.7	0.1	0	5.3	0.1												

SYSTEM CONTROL ICs DC VOLTAGE CHART (SLP MODE)

REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	0	0	0	0	4.4	0	0.6	5.2	4.3	5.3	0	5.0	0.3	5.1	5.4	3.0	3.3	3.3	0.5
PLAY	0	0	5.3	0	0	4.4	0	0.6	5.3	4.3	5.3	5.3	5.0	0.3	5.0	5.4	3.0	3.3	3.3	0.5
REC	0	0	5.3	0	0	4.4	0	0.6	5.3	4.2	5.2	5.3	5.0	0.3	5.1	5.4	3.0	3.3	3.3	0.5
F.F	0	0	5.1	0	0	4.4	0	0.6	5.3	4.3	5.2	5.3	5.0	0.3	5.1	5.4	3.0	3.3	3.3	0.5
REW	0	0	5.1	0	0	4.4	0	0.6	5.2	4.3	5.3	5.2	5.0	0.3	5.1	5.4	3.0	3.3	3.3	0.5

REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	2.1	2.2	0	2.2	5.4	0	0	5.4	5.0	4.9	5.2	5.1	5.0	5.3	0.1	5.3	5.3	12.2	12.2
PLAY	0	2.1	2.2	5.1	5.4	0	2.5	2.5	2.7	5.1	5.0	5.2	5.1	5.1	5.3	0.1	5.3	5.3	12.2	12.2
REC	0	2.1	2.2	5.1	5.3	0	2.5	2.5	2.7	0	5.0	5.2	5.1	5.1	5.3	0.2	5.3	5.3	0.3	0.3
F.F	0	2.1	2.2	0	2.2	5.4	2.8	0	2.7	5.1	4.9	5.2	5.1	5.0	0	0.1	5.2	5.3	12.2	12.2
REW	0	2.2	2.2	0	2.2	5.4	2.8	0	2.7	5.1	4.9	5.2	5.1	5.0	0	0.1	5.3	5.3	12.2	12.2

REF. NO.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	12.2	12.2	1.9	0.1	0.1	5.3	5.3	0	0.2	5.3	5.4	0.1	0	0	4.1	0.1	4.4	5.1	0	0.1
PLAY	12.2	12.2	5.3	0.1	0.1	0	5.3	5.3	0.1	5.3	5.4	4.5	0.1	4.0	0	5.2	4.4	5.1	0	0.1
REC	0.3	0.3	5.3	0.2	0.2	0.1	5.3	5.3	0.2	5.3	5.4	4.4	4.6	4.0	4.1	0.1	4.4	0.1	0	0.1
F.F	12.2	12.2	5.3	0	0	0	5.2	5.3	0.1	5.2	5.4	0.1	0.1	0.1	4.1	0.1	4.4	5.1	0	0.1
REW	12.2	12.2	5.3	0	0.1	0	5.2	0	0.1	5.2	5.4	0.1	0.1	0.1	4.1	0.1	4.4	5.1	0	0.1

REF. NO.	IC6001										IC6002									
MODE	61	62	63	64							1	2	3	4	5	6	7	8		
STOP	5.3	2.2	2.4	5.3							5.1	4.8	2.5	0	0	0.4	0	5.4		
PLAY	0	2.2	2.4	5.3							2.8	2.6	2.6	0	0	0.4	0	5.4		
REC	0	2.2	2.4	5.3							2.8	2.6	2.6	0	0	0.4	0	5.4		
F.F	5.3	2.2	2.4	5.2							2.8	2.3	2.7	0	0	0.4	0	5.4		
REW	5.2	2.1	2.4	5.2							2.8	2.3	2.7	0	0	0.4	0	5.4		

REF. NO.	IC6003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	0	0	0	0	5.3	5.4	5.4	0	0	5.2	0	0	0	5.3	0.5	5.4				
PLAY	0	1.0	0	0	0	0.7	4.8	0	0	5.3	2.1	0	0	2.0	0.4	5.4				
REC	0	1.0	0	0	0.1	2.7	4.8	0	0	5.3	2.1	0	0	2.0	3.1	5.4				
F.F	0	1.1	0	0	0	2.7	4.8	0	0	5.2	2.2	0	0	2.1	0.9	5.4				
REW	0	1.1	0	0	0	2.7	4.8	0	0	0	2.2	0	0	2.1	0.9	5.4				

REF. NO.	IC6004																			
MODE	1	2	3																	
STOP	5.4	5.4	0																	
PLAY	5.4	5.4	0																	
REC	5.4	5.4	0																	
F.F	5.4	5.4	0																	
REW	5.4	5.4	0																	

SYSTEM CONTROL TRANSISTORs DC VOLTAGE CHART (SLP MODE)

REF. NO.	Q1401																	
MODE	E	C	B															
STOP	0	0.4	0.3															
PLAY	0	0.4	0.3															
REC	0	11.3	−0.3															
F.F	0	0.4	0.3															
REW	0	0.4	0.3															

REF. NO.	Q6005			Q6006			Q6007			Q6008			Q6009			Q6010		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	5.1	0.1	12.2	12.0	11.4	12.2	12.2	11.5	12.2	0.3	12.2	12.2	0.3	12.2	12.2	0	12.2
PLAY	0	5.0	0.1	12.2	12.2	11.4	12.2	12.2	11.5	12.2	0.3	12.2	12.2	0.1	12.2	12.2	0	12.2
REC	0	5.1	0.1	0	0	12.2	12.2	12.1	11.4	12.0	12.0	11.3	12.0	12.0	11.3	12.1	12.1	11.3
F.F	0	5.1	0.1	12.2	12.0	11.4	12.2	12.2	11.5	12.2	0.3	12.2	12.2	0.3	12.2	12.2	0	12.2
REW	0	5.1	0.1	12.2	12.0	11.4	12.2	12.2	11.5	12.2	0.3	12.2	12.2	0.4	12.2	12.2	0	12.2

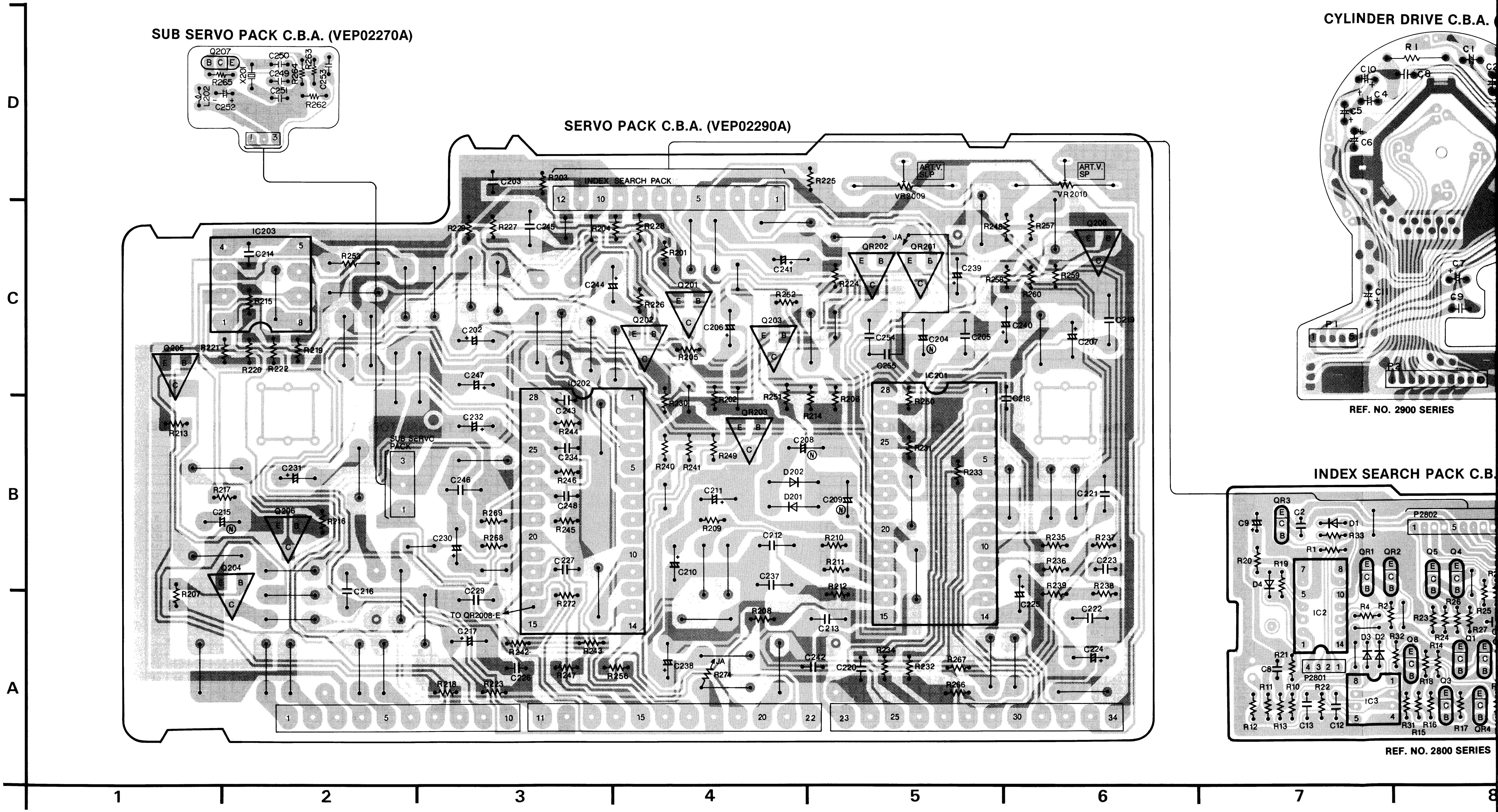
REF. NO.	Q6011			Q6015			Q6016			Q6017			Q6018			Q6019		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	12.2	0	12.2	4.1	4.1	4.8	14.4	15.9	15.6	14.4	14.4	5.8	0	14.4	0	0.7	14.4	0.6
PLAY	12.2	0	12.2	3.3	3.3	4.0	10.2	15.6	11.4	10.2	10.2	1.8	0	10.2	0	0.7	10.2	0.6
REC	12.0	12.0	11.3	4.1	4.1	4.8	10.2	15.6	11.4	10.2	10.2	1.7	0	10.2	0	0.7	10.2	0.6
F.F	12.2	0	12.2	4.1	4.1	4.8	14.3	15.8	15.6	14.3	14.4	5.8	0	14.4	0	0.7	14.3	0.6
REW	12.2	0	12.2	4.1	4.1	4.8	14.4	15.9	15.6	14.4	14.3	5.7	0	14.3	0	0.7	14.3	0.6

REF. NO.	QR6001			QR6002			QR6003			QR6004			QR6005			QR6006		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	4.8	0.3	0	0.1	4.8	0	9.9	0	0	5.4	0	0	0	5.1	5.4	5.3	0.2
PLAY	0	4.8	0.4	0	0.1	4.8	0	9.9	0	0	3.0	1.8	0	0	5.1	5.4	5.3	0.1
REC	0	4.8	0.1	0	0.1	4.8	0	9.9	0	0	3.0	1.8	0	12.1	0.1	5.4	5.3	0.2
F.F	0	4.8	0.3	0	0.1	4.8	0	9.9	0	0	3.2	2.1	0	0	5.1	5.4	5.3	0.1
REW	0	4.8	0.3	0	0.1	4.8	0	9.9	0	0	3.2	2.1	0	0	5.1	5.4	5.3	0.1

REF. NO.	QR6008			QR6009			QR6010			QR6011			QR6012			QR6013		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	5.4	0	5.4	5.4	0	5.3	5.4	-0.3	5.3	0	4.9	0.6	5.1	0.6	4.4	0	0.6	0
PLAY	5.4	0	5.4	5.4	0	5.3	5.4	0.1	5.3	0	0.1	3.9	5.1	0.6	4.4	0	3.9	0
REC	5.4	0	5.4	5.4	−0.1	5.3	5.4	0.1	5.3	0	0.1	3.9	5.1	0.6	4.4	0	3.9	0
F.F	5.4	0	5.4	5.4	0	5.3	5.4	0.1	5.2	0	4.9	0.7	5.1	0.6	4.4	0	0.7	0
REW	4.4	0	5.4	5.4	0	5.3	5.4	0	5.3	0	4.9	0.7	5.1	0.6	4.4	0	0.7	0

REF. NO.	QR6051			QR6052														
MODE	E	C	B	E	C	B												
STOP	0	0.7	0.1	0	5.3	0.1												
PLAY	0	5.0	0.1	0	5.3	0.1												
REC	0	0.9	0.1	0	5.3	0.1												
F.F	0	0.7	0.1	0	5.3	0.1												
REW	0	0.7	0.1	0	5.3	0.1												

SERVO PACK C.B.A. (VEP02290A), SUB SERVO PACK C.B.A. (VEP02270A), INDEX SEARCH PACK C.B.A. (VEP02257A) & CYLINDER DRIVE C.B.A. (V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CYLINDER DRIVE C.B.A.
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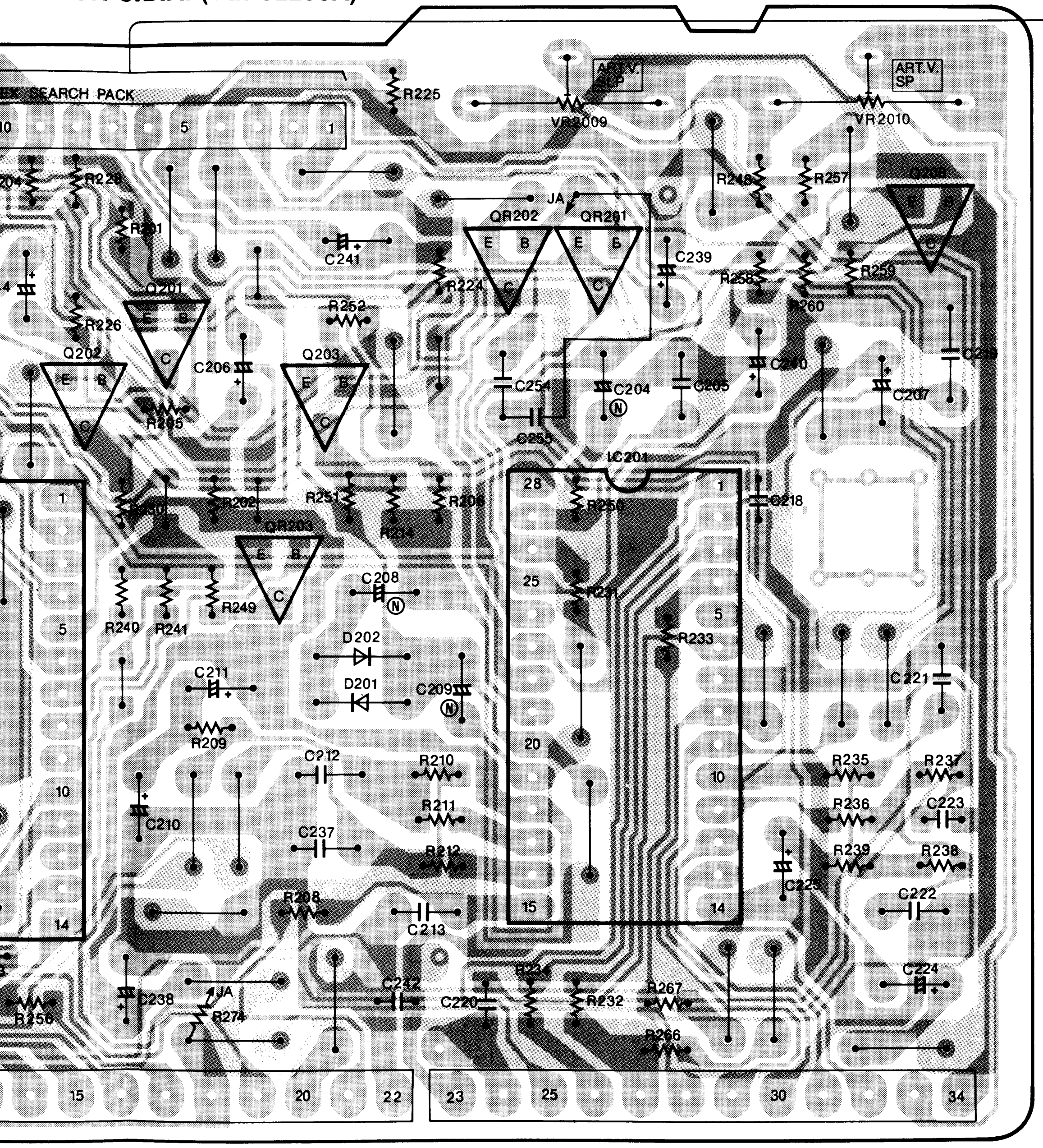
INDEX SEARCH PACK C.B.
REF. NO. 2800 SERIES
INDEX SEARCH PACK
SUB SERVO PACK
TO QR2008-E
ART.V. SLP
ART.V. SP
VR2009
VR2010
IC201
IC202
IC203
IC2
IC3
P2801
P2802
D
C
B
A
1
2
3
4
5
6
7
8

A. (VEP02270A), INDEX SEARCH PACK C.B.A. (VEP02257A) & CYLINDER DRIVE C.B.A. (VEP00H22A)

VO PACK C.B.A. (VEP02290A)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JA
R248
R257
Q208
C239
R258
R259
R260
Q201
R224
R252
Q202
R226
C206
Q203
C254
C204
C205
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R214
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C208
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D201
C209
R233
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C211
C221
R209
C212
R210
R211
C210
C237
R212
20
10
R235
R237
R236
C223
R239
R238
C225
R208
C213
15
14
C222
C224
C242
R231
R232
R267
C238
JA
R274
C220
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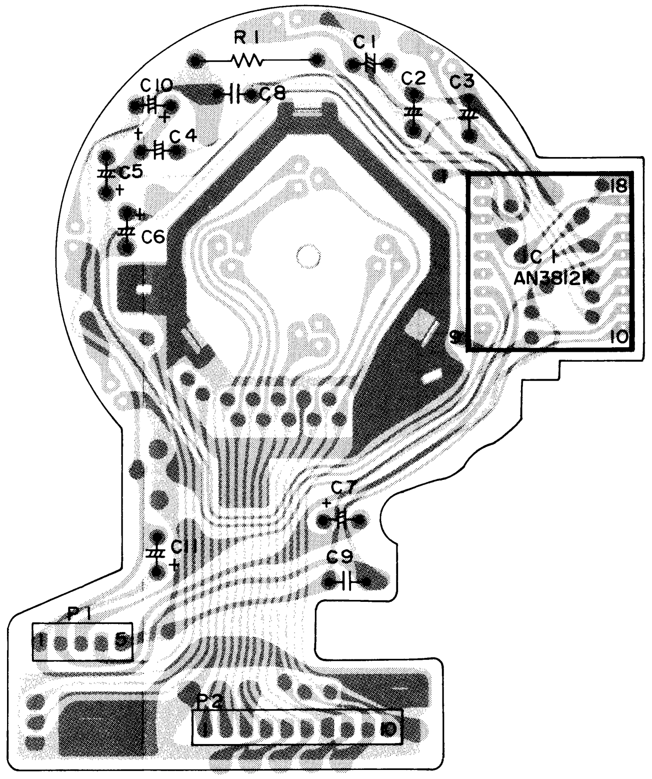
B
C

CYLINDER DRIVE C.B.A. (VEP00H22A)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C10
C8
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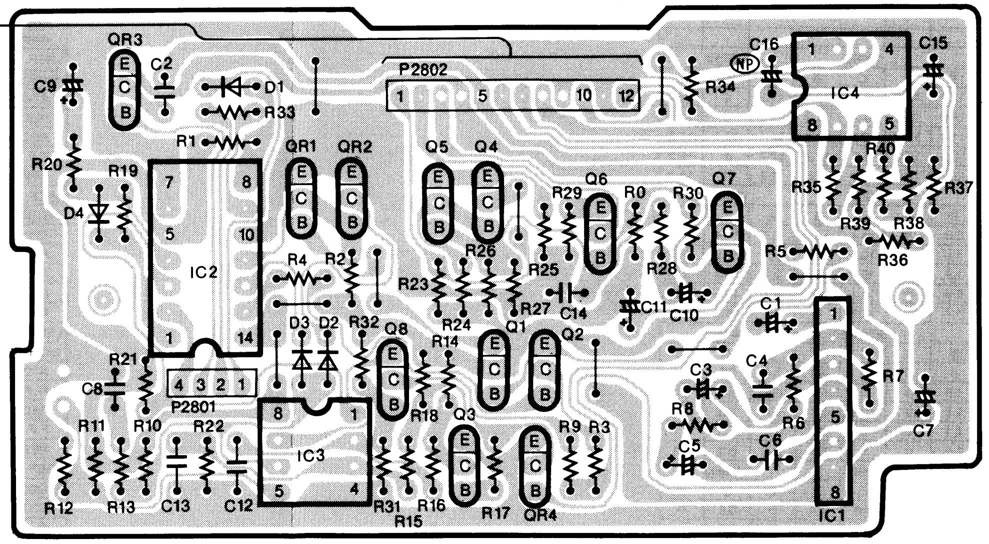
C3
C4
C5
C6
IC1
AN3812K
18
10
9
C7
C11
C9
P1
5
P2

REF. NO. 2900 SERIES

INDEX SEARCH PACK C.B.A. (VEP02257A)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C16
C15
IC4
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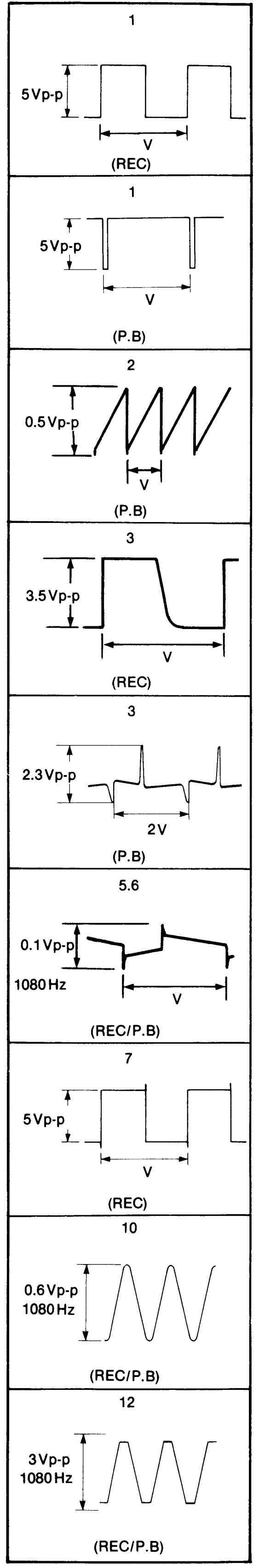
8
5
R1
R20
R19
QR1
QR2
Q5
Q4
R40
7
8
D4
5
10
R29
Q6
R0
R30
Q7
R35
R37
R39
R38
R36
IC2
R4
R2
R26
R23
R25
R28
R5
1
14
D3
D2
R32
Q8
R24
R27
C14
C11
C10
C1
R14
Q1
Q2
1
R21
C8
4 3 2 1
P2801
R18
C3
C4
R7
C7
R11
R10
R22
8
1
Q3
R8
R6
5
IC3
R9
R3
C5
C6
R12
R13
C13
C12
5
4
R31
R16
R15
R17
QR4
8
IC1
E
C
B

REF. NO. 2800 SERIES

SERVO PACK, SUB SERVO PACK, INDEX SEARCH PACK & CYLINDER DRIVE C.B.A.	
Transistor	
Q201	C-4
Q202	C-4
Q203	C-4
Q204	B-2
Q205	C-1
Q206	B-2
Q207	D-1
Q208	C-6
Q2801	A-8
Q2802	A-8
Q2803	A-8
Q2804	B-8
Q2805	B-8
Q2806	B-8
Q2807	B-8
Q2808	A-8
Transistor & Resistor	
QR201	C-5
QR202	C-5
QR203	B-4
QR2801	B-7
QR2802	B-7
QR2803	B-7
QR2804	A-8
Integrated Circuit	
IC201	C-5
IC202	C-3
IC203	C-2
IC2801	A-9
IC2802	A-7
IC2803	A-7
IC2804	B-9
IC2901	D-8
Adjustment	
VR2009	D-5
VR2010	D-6

ADDRESS INFORMATION

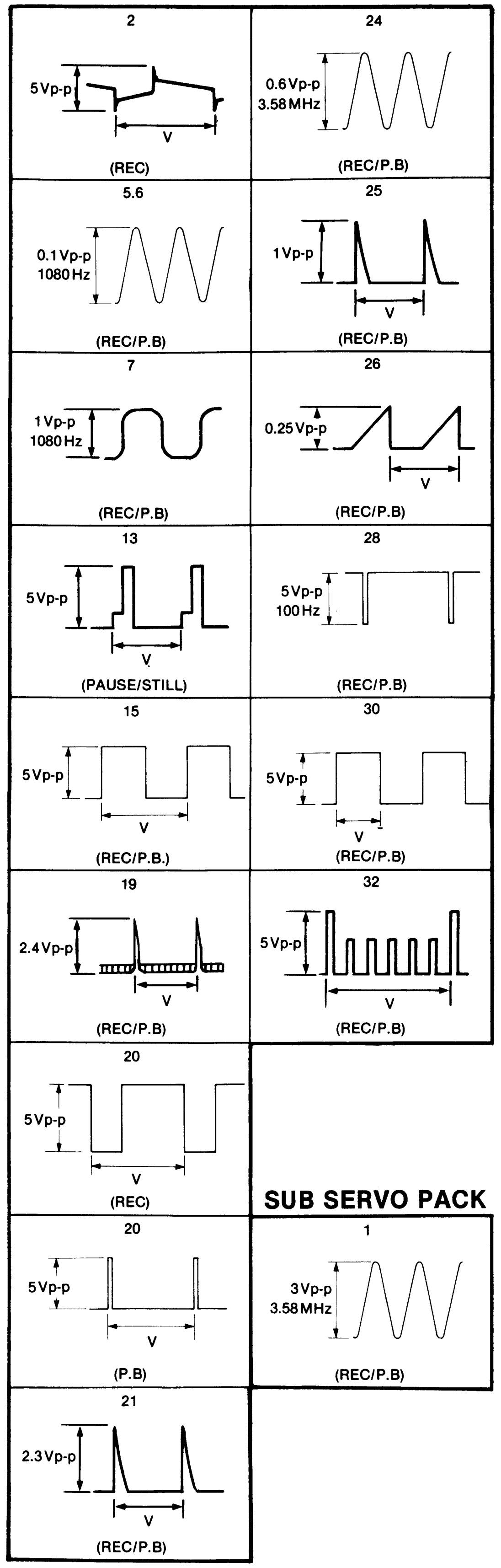
INDEX SEARCH PACK

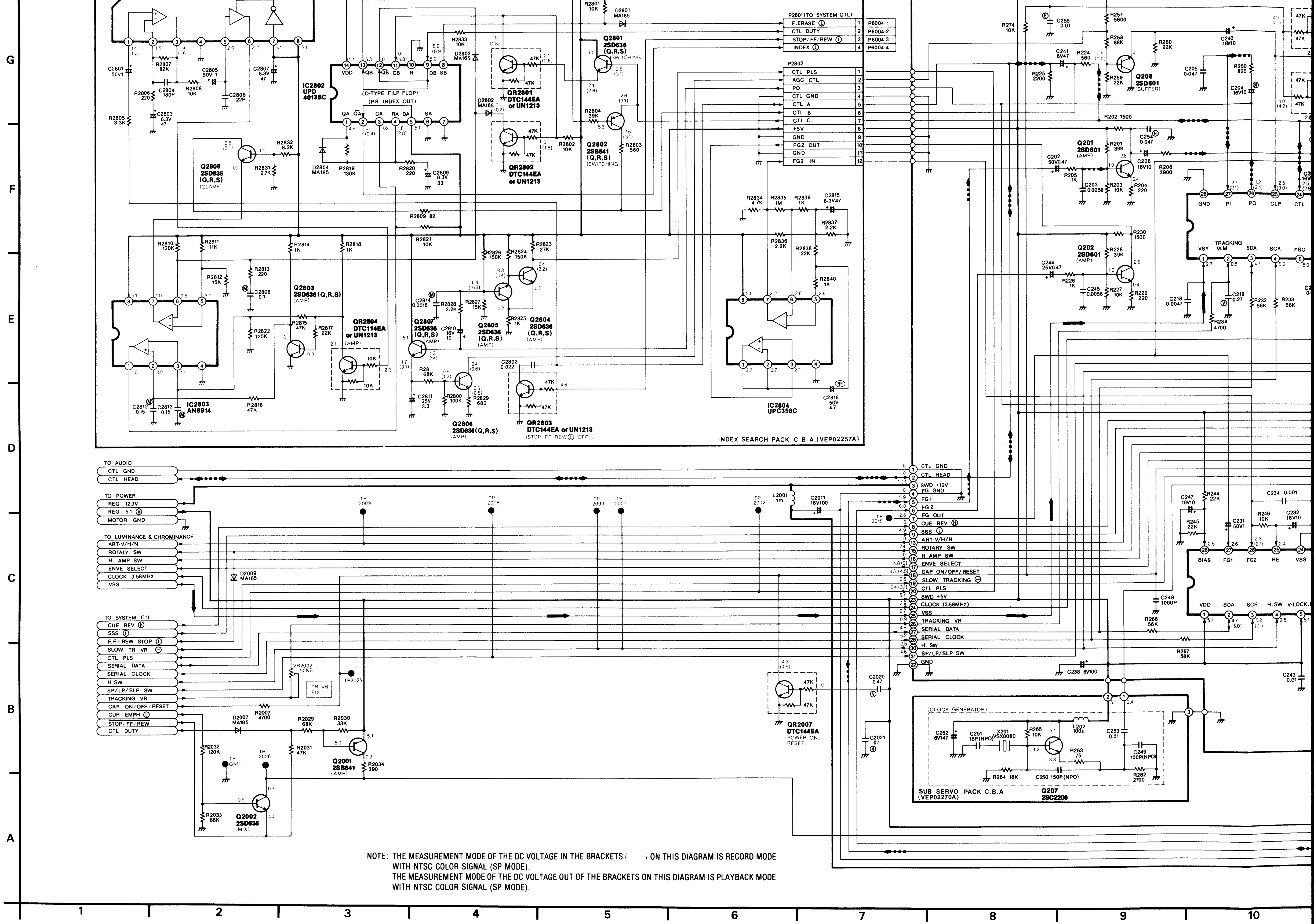


4 5 6 7 8 9

SERVO Section, SERVO PACK, SUB SERVO PACK, INDEX SEARCH PACK & CYLINDER DRIVE SCHEMATIC DIAGR

SERVO PACK

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IC2802 UPD 4013BC
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(P.B INDEX OUT)
IC2803 AN6914
IC2804 UPC358C
Q2801 2SD636 (Q,R,S) (SWITCHING)
Q2802 2SB641 (Q,R,S) (SWITCHING)
QR2801 DTC144EA or UN1213
QR2802 DTC144EA or UN1213
QR2803 DTC144EA or UN1213 (STOP FF REW OFF)
QR2804 DTC114EA or UN1213 (AMP)
Q2803 2SD636 (Q,R,S) (AMP)
Q2804 2SD636 (Q,R,S) (AMP)
Q2805 2SD636 (Q,R,S) (AMP)
Q2806 2SD636 (Q,R,S) (AMP)
Q2807 2SD636 (Q,R,S) (AMP)
Q2808 2SD636 (Q,R,S) (CLAMP)
D2801 MA165
D2802 MA165
D2803 MA165
D2804 MA165
P2801 (TO SYSTEM CTL)
F.ERASE
CTL DUTY
STOP/FF/REW
INDEX
P6004-1
P6004-2
P6004-3
P6004-4
P2802
CTL PLS
AGC CTL
PO
CTL GND
CTL A
CTL B
CTL C
+5V
GND
FG2 OUT
GND
FG2 IN
INDEX SEARCH PACK C.B.A. (VEP02257A)
TO AUDIO
CTL GND
CTL HEAD
TO POWER
REG 12.3V
REG 5.1
MOTOR GND
TO LUMINANCE & CHROMINANCE
ART-V/H/N
ROTALY SW
H. AMP SW
ENVE SELECT
CLOCK 3.58MHz
VSS
TO SYSTEM CTL
CUE REV
SSS
F.F/REW/STOP
SLOW TR VR
CTL PLS
SERIAL DATA
SERIAL CLOCK
H.SW
SP/LP/SLP SW
TRACKING VR
CAP ON/OFF/RESET
CUR EMPH
STOP/FF/REW
CTL DUTY
TP2009
TP2008
TP2099
TP2001
TP2002
TP2015
TP2025
TP2026
L2001 1m
C2011 16V100
D2009 MA165
D2007 MA165
VR2002 50KB
TR VR FIX
Q2001 2SB641 (AMP)
Q2002 2SD636 (MIX)
QR2007 DTC144EA (POWER ON RESET)
CTL GND
CTL HEAD
SWD +12V
FG GND
FG1
FG2
FG OUT
CUE REV
SSS
ART-V/H/N
ROTARY SW
H. AMP SW
ENVE SELECT
CAP ON/OFF/RESET
SLOW TRACKING
CTL PLS
SWD +5V
CLOCK (3.58MHz)
VSS
TRACKING VR
SERIAL DATA
SERIAL CLOCK
H. SW
SP/LP/SLP SW
GND
Q201 2SD601 (AMP)
Q202 2SD601 (AMP)
Q208 2SD601 (BUFFER)
Q207 2SC2206
(CLOCK GENERATOR)
X201 VSX0060
SUB SERVO PACK C.B.A (VEP02270A)
GND
PI
PO
CLP
CTL
VSY
TRACKING M.M
SDA
SCK
FSC
BIAS
FG1
FG2
RE
VSS
VDD
SDA
SCK
H.SW
V-LOCK
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH NTSC COLOR SIGNAL (SP MODE).
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH NTSC COLOR SIGNAL (SP MODE).

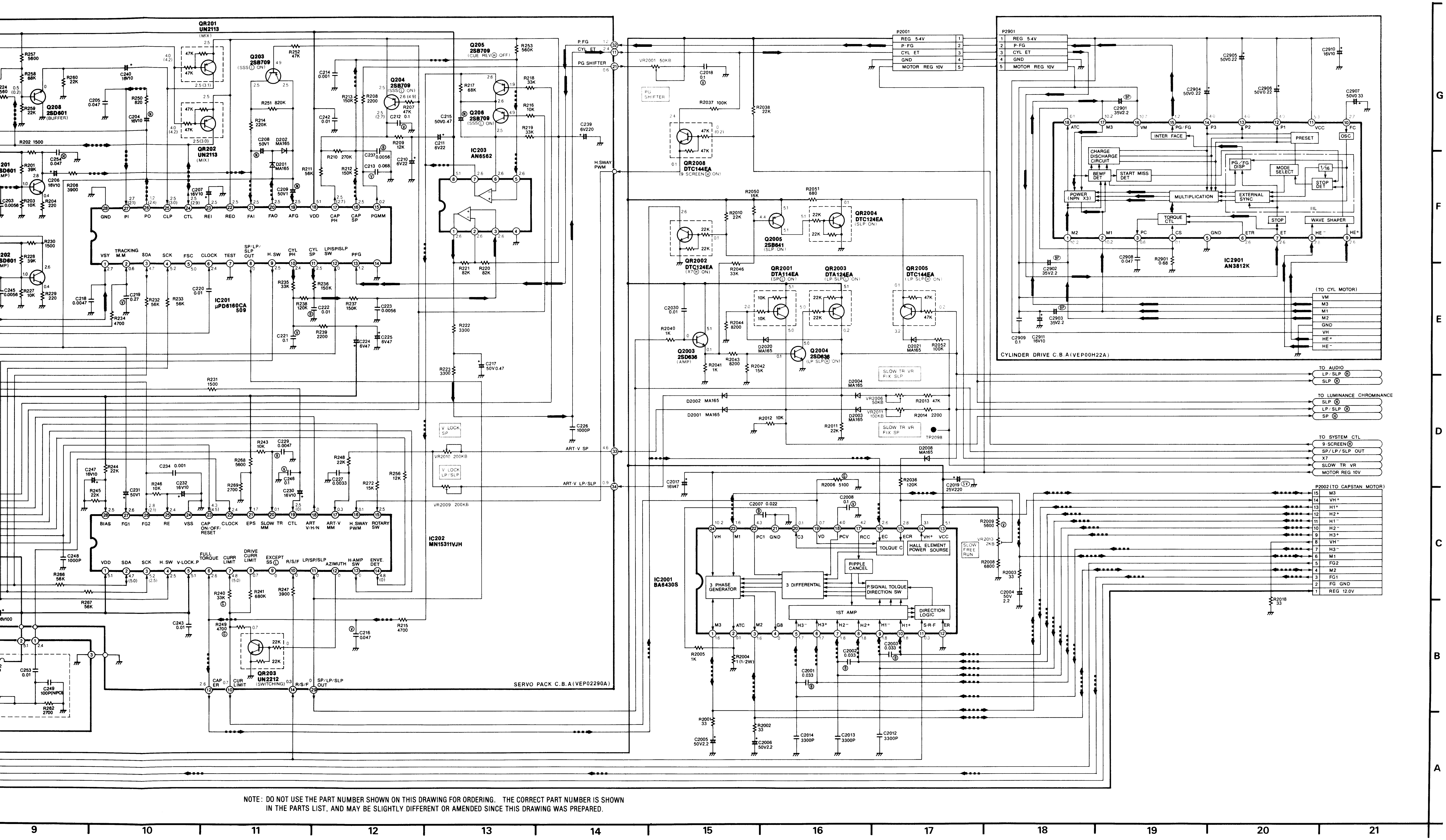
SCHEMATIC DIAGRAM

CYLINDER SERVO SPEED LOOP

CAPSTAN SERVO SPEED LOOP

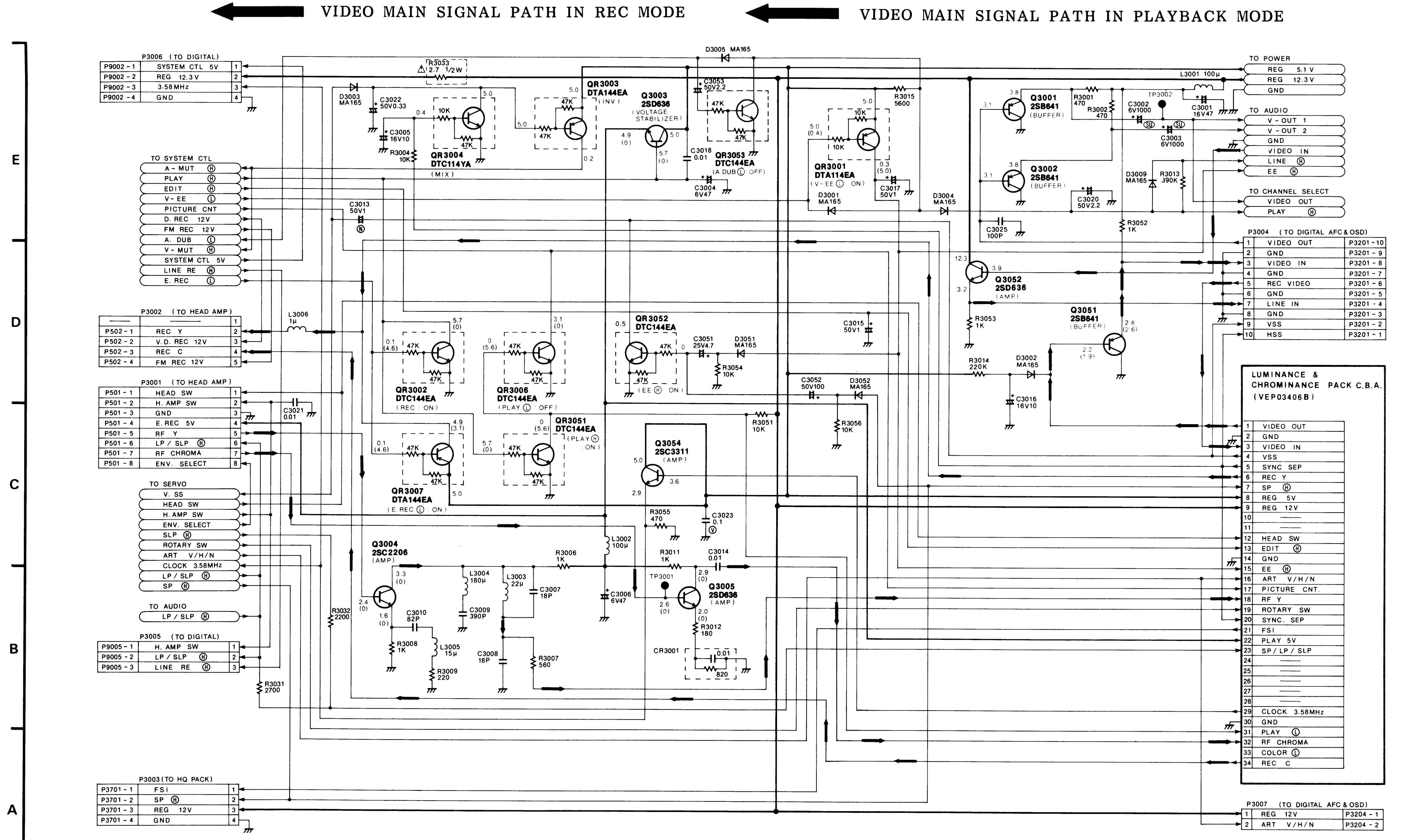
CYLINDER SERVO PHASE LOOP

CAPSTAN SERVO PHASE LOOP


QR201 UN2113 (MIX)
QR202 UN2113 (MIX)
Q203 2SB709
Q204 2SB709
Q205 2SB709 (CUE·REV(H) OFF)
Q206 2SB709
Q208 2SD601 (BUFFER)
IC201 μPD6160CA 509
IC202 MN15311VJH
IC203 AN6562
QR203 UN2212 (SWITCHING)
SERVO PACK C.B.A (VEP02290A)
P.FG
CYL ET
PG SHIFTER
H.SWAY PWM
ART·V SP
ART·V LP/SLP
V LOCK SP
V LOCK LP/SLP
VR2010 200KB
VR2009 200KB
VR2001 50KB
PG SHIFTER
QR2008 DTC144EA (9 SCREEN(H) ON)
QR2002 DTC124EA (X7(H) ON)
Q2005 2SB641 (SLP ON)
QR2004 DTC124EA (SLP ON)
QR2001 DTA114EA (SP(L) ON)
QR2003 DTA124EA (LP·SLP(L) ON)
QR2005 DTA124EA (LP·SLP(H) ON)
Q2003 2SD636 (AMP)
Q2004 2SD636 (LP·SLP(H) ON)
SLOW TR VR FIX SLP
SLOW TR VR FIX SP
TP2098
IC2001 BA6430S
3 PHASE GENERATOR
3 DIFFERENTIAL
TOLQUE C
HALL ELEMENT POWER SOURSE
RIPPLE CANCEL
P.SIGNAL TOLQUE DIRECTION SW
1ST AMP
DIRECTION LOGIC
SLOW FREE RUN
P2001
REG 5.4V
P·FG
CYL ET
GND
MOTOR REG 10V
P2901
CYLINDER DRIVE C.B.A (VEP00H22A)
IC2901 AN3812K
INTER FACE
PRESET
OSC
CHARGE DISCHARGE CIRCUIT
BEMF DET
START MISS DET
PG/FG DISP
MODE SELECT
1/16
STOP DET
POWER (NPN X3)
MULTIPLICATION
EXTERNAL SYNC
TORQUE CTL
STOP
WAVE SHAPER
(TO CYL MOTOR)
VM
M3
M1
M2
GND
VH
HE+
HE−
TO AUDIO
LP/SLP (H)
SLP (H)
TO LUMINANCE CHROMINANCE
SLP (H)
LP/SLP (H)
SP (H)
TO SYSTEM CTL
9·SCREEN(H)
SP/LP/SLP OUT
X7
SLOW TR VR
MOTOR REG 10V
P2002 (TO CAPSTAN MOTOR)
15 M3
14 VH+
13 H1+
12 H2+
11 H1−
10 H2−
9 H3+
8 VH−
7 H3−
6 M1
5 FG2
4 M2
3 FG1
2 FG GND
1 REG 12.0V
9
10
11
12
13
14
15
16
17
18
19
20
21
A
B
C
D
E
F
G

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

LUMINANCE & CHROMINANCE Section SCHEMATIC DIAGRAM


VIDEO MAIN SIGNAL PATH IN REC MODE
VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
P3006 (TO DIGITAL)
P9002-1 SYSTEM CTL 5V
P9002-2 REG 12.3V
P9002-3 3.58MHz
P9002-4 GND
TO SYSTEM CTL
A-MUT Ⓗ
PLAY Ⓗ
EDIT Ⓗ
V-EE Ⓛ
PICTURE CNT
D. REC 12V
FM REC 12V
A. DUB Ⓛ
V-MUT Ⓗ
SYSTEM CTL 5V
LINE RE Ⓗ
E. REC Ⓛ
P3002 (TO HEAD AMP)
P502-1 REC Y
P502-2 V.D. REC 12V
P502-3 REC C
P502-4 FM REC 12V
P3001 (TO HEAD AMP)
P501-1 HEAD SW
P501-2 H. AMP SW
P501-3 GND
P501-4 E. REC 5V
P501-5 RF Y
P501-6 LP/SLP Ⓗ
P501-7 RF CHROMA
P501-8 ENV. SELECT
TO SERVO
V. SS
HEAD SW
H. AMP SW
ENV. SELECT
SLP Ⓗ
ROTARY SW
ART V/H/N
CLOCK 3.58MHz
LP/SLP Ⓗ
SP Ⓗ
TO AUDIO
LP/SLP Ⓗ
P3005 (TO DIGITAL)
P9005-1 H. AMP SW
P9005-2 LP/SLP Ⓗ
P9005-3 LINE RE Ⓗ
P3003 (TO HQ PACK)
P3701-1 FSI
P3701-2 SP Ⓗ
P3701-3 REG 12V
P3701-4 GND
R3033 ⚠ 2.7 1/2W
D3003 MA165
C3022 50V0.33
C3005 16V10
R3004 10K
QR3004 DTC114YA (MIX)
QR3003 DTA144EA (INV)
Q3003 2SD636 (VOLTAGE STABILIZER)
C3018 0.01
D3005 MA165
C3053 50V2.2
QR3053 DTC144EA (A DUB Ⓛ OFF)
C3004 6V47
QR3001 DTA114EA (V-EE Ⓛ ON)
R3015 5600
C3017 50V1
D3001 MA165
D3004 MA165
C3013 50V1
L3006 1μ
C3021 0.01
QR3002 DTC144EA (REC ON)
QR3006 DTC144EA (PLAY Ⓛ OFF)
QR3052 DTC144EA (EE Ⓗ ON)
C3051 25V4.7
D3051 MA165
R3054 10K
C3052 50V100
D3052 MA165
R3056 10K
R3051 10K
QR3007 DTA144EA (E REC Ⓛ ON)
QR3051 DTC144EA (PLAY Ⓗ ON)
Q3054 2SC3311 (AMP)
R3055 470
C3023 0.1
L3002 100μ
Q3004 2SC2206 (AMP)
C3010 82P
R3008 1K
L3005 15μ
R3009 220
L3004 180μ
C3009 390P
L3003 22μ
C3007 18P
C3008 18P
R3007 560
R3006 1K
C3006 6V47
R3011 1K
TP3001
C3014 0.01
Q3005 2SD636 (AMP)
R3012 180
CR3001 0.01 820
R3032 2200
R3031 2700
Q3001 2SB641 (BUFFER)
Q3002 2SB641 (BUFFER)
R3001 470
R3002 470
C3002 6V1000
TP3002
C3003 6V1000
C3001 16V47
L3001 100μ
D3009 MA165
R3013 390K
C3020 50V2.2
C3025 100P
R3052 1K
Q3052 2SD636 (AMP)
R3053 1K
C3015 50V1
Q3051 2SB641 (BUFFER)
R3014 220K
D3002 MA165
C3016 16V10
TO POWER
REG 5.1V
REG 12.3V
GND
TO AUDIO
V-OUT 1
V-OUT 2
GND
VIDEO IN
LINE Ⓗ
EE Ⓗ
TO CHANNEL SELECT
VIDEO OUT
PLAY Ⓗ
P3004 (TO DIGITAL AFC & OSD)
1 VIDEO OUT P3201-10
2 GND P3201-9
3 VIDEO IN P3201-8
4 GND P3201-7
5 REC VIDEO P3201-6
6 GND P3201-5
7 LINE IN P3201-4
8 GND P3201-3
9 VSS P3201-2
10 HSS P3201-1
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03406B)
1 VIDEO OUT
2 GND
3 VIDEO IN
4 VSS
5 SYNC SEP
6 REC Y
7 SP Ⓗ
8 REG 5V
9 REG 12V
12 HEAD SW
13 EDIT Ⓗ
14 GND
15 EE Ⓗ
16 ART V/H/N
17 PICTURE CNT.
18 RF Y
19 ROTARY SW
20 SYNC. SEP
21 FSI
22 PLAY 5V
23 SP/LP/SLP
29 CLOCK 3.58MHz
30 GND
31 PLAY Ⓛ
32 RF CHROMA
33 COLOR Ⓛ
34 REC C
P3007 (TO DIGITAL AFC & OSD)
1 REG 12V P3204-1
2 ART V/H/N P3204-2
A B C D E
1 2 3 4 5 6 7 8 9

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH NTSC COLOR SIGNAL (SP MODE).
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH NTSC COLOR SIGNAL (SP MODE).

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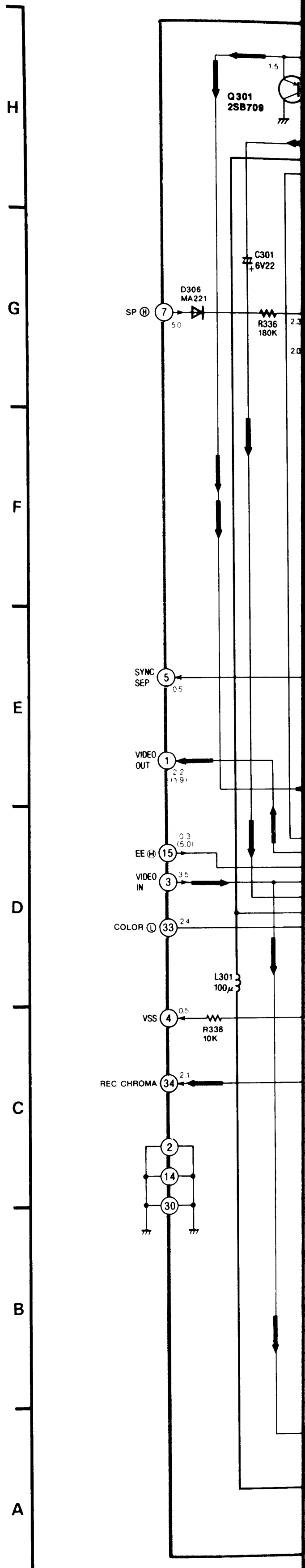
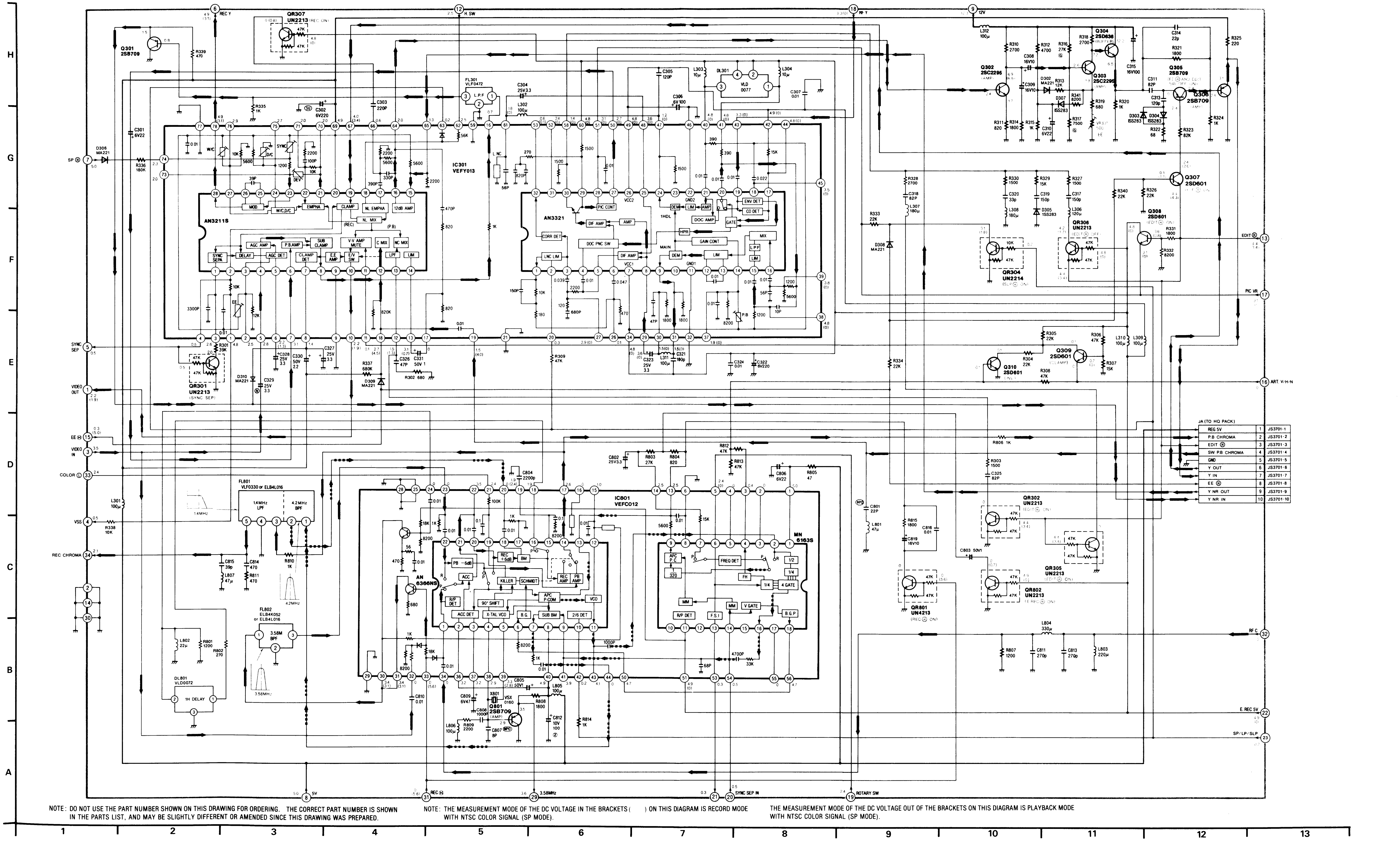
LUMINANCE


Q301 2SB709
C301 6V22
D306 MA221
SP Ⓗ 7
R336 180K
SYNC SEP 5
VIDEO OUT 1
EE Ⓗ 15
VIDEO IN 3
COLOR Ⓛ 33
L301 100μ
VSS 4
R338 10K
REC CHROMA 34
2
14
30
H G F E D C B A
1

NOTE: DO NOT USE THE PART NUMBE
IN THE PARTS LIST, AND MA

LUMINANCE & CHROMINANCE PACK SCHEMATIC DIAGRAM

MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
4.2MHz PHASE ROTATIONAL SIGNAL PATH IN REC MODE
4.2MHz PHASE ROTATIONAL SIGNAL PATH IN PLAYBACK MODE



IC301 VEFY013
AN3211S
AN3321
IC801 VEFC012
MN 6163S
AN 6366NS
Q301 2SB709
QR307 UN2213 (REC ON)
FL301 VLF0472
L.P.F
DL301 VLD 0077
Q302 2SC2295 (AMP)
Q303 2SC2295
Q304 2SD636
Q305 2SB709
Q306 2SB709
Q307 2SD601
Q308 2SD601
Q309 2SD601 (CLAMP)
Q310 2SD601
QR301 UN2213 (SYNC SEP)
QR302 UN2213
QR304 UN2214
QR305 UN2213
QR306 UN2213
QR801 UN4213
QR802 UN2213
Q801 2SB709 (AMP)
FL801 VLF0330 or ELB4L016
14MHz LPF
4.2MHz BPF
FL802 ELB4K052 or ELB4L016
3.58M BPF
DL801 VLD0072
1H DELAY
X801 VSX 0160
SYNC SEPA
DELAY
AGC AMP
AGC DET
P.B AMP
SUB CLAMP
CLAMP DET
E.E AMP
V-V AMP MUTE
E/V SW
C MIX
NC MIX
LPF
LIM
MOD
W/C/D/C
EMPHA
CLAMP
NL EMPHA
12dB AMP
NL MIX
(REC)
(P.B)
CORR DET
LNC LIM
DIF AMP
DOC PNC SW
PIC CONT
AMP
DEM
HPF
GAIN CONT
ENV DET
CO DET
DOC AMP
GATE
MIX
L.P.F
PB -6dB
REC +6dB
BM
ACC
KILLER
SCHMIDT
REC AMP
PB AMP
R/P DET
90° SHIFT
APC P.COM
VCO
ACC DET
X-TAL VCO
B.G.
SUB BM
2/6 DET
AFC P.C
1/320
FREQ DET
1/2
1/4
FH
4 GATE
MM
V GATE
B.G.P
F.S.I
12V
RF Y
REC Y
H SW
SP ⓗ
SYNC SEP
VIDEO OUT
EE ⓗ
VIDEO IN
COLOR ⓛ
VSS
REC CHROMA
EDIT ⓗ
PIC VR
ART. V/H/N
RF C
E REC 5V
SP/LP/SLP
5V
REC ⓗ
3.58MHz
SYNC SEP IN
ROTARY SW
14MHz
4.2MHz
3.58MHz

JA (TO HQ PACK)

REG 5V	1	JS3701-1
P.B CHROMA	2	JS3701-2
EDIT ⓗ	3	JS3701-3
SW P.B CHROMA	4	JS3701-4
GND	5	JS3701-5
Y OUT	6	JS3701-6
Y IN	7	JS3701-7
EE ⓗ	8	JS3701-8
Y NR OUT	9	JS3701-9
Y NR IN	10	JS3701-10

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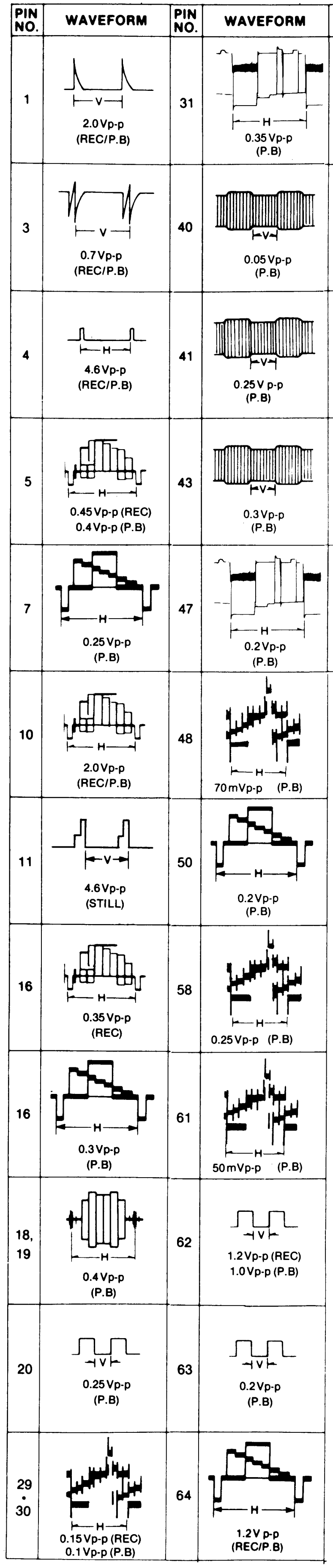
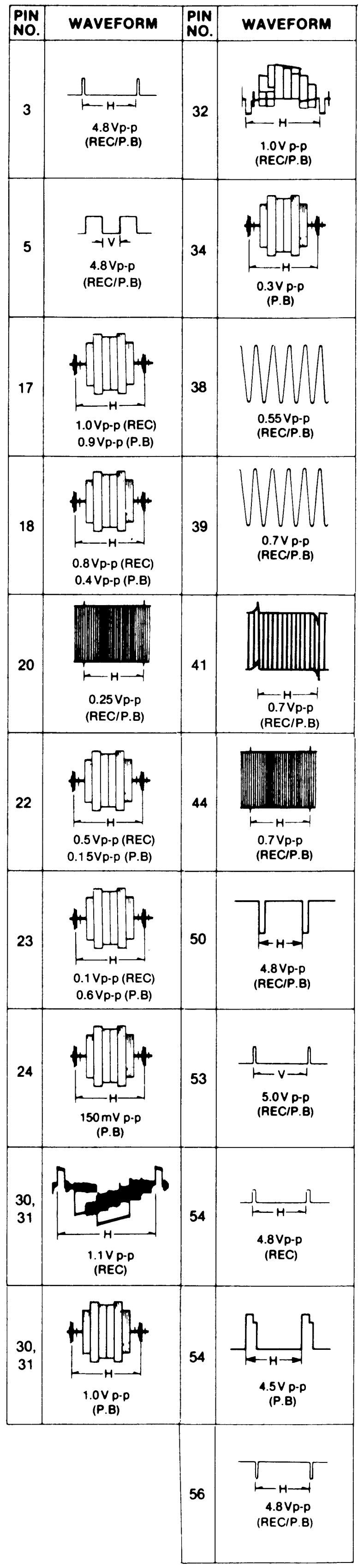
IC301 (VEFY013)



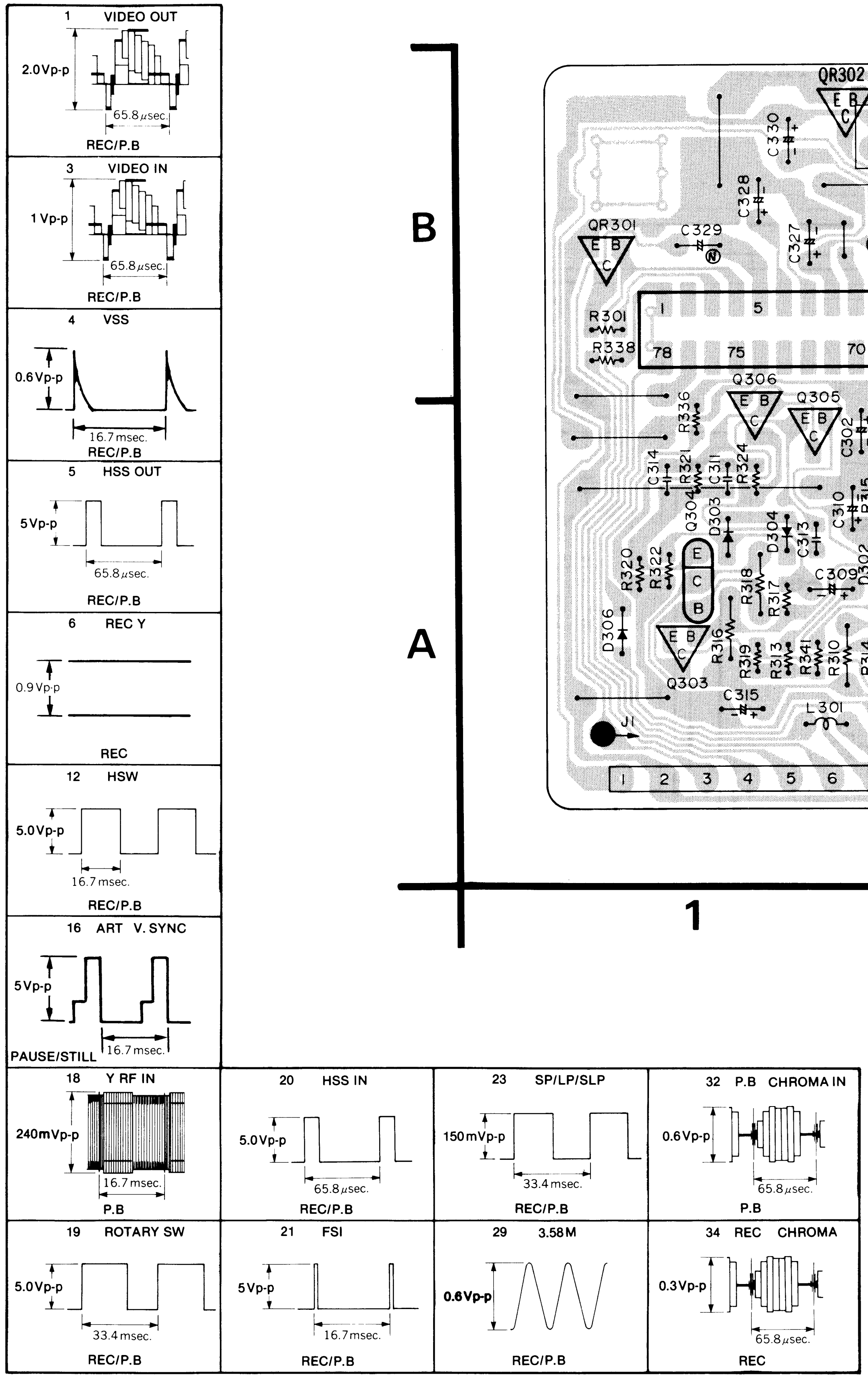
PIN NO.	WAVEFORM	PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
1	V 2.0Vp-p (REC/P.B)	31	H 0.35Vp-p (P.B)	65	0.3V p-p (REC/P.B)
3	V 0.7Vp-p (REC/P.B)	40	H 0.05Vp-p (P.B)	66	H 0.6V p-p (REC/P.B)
4	H 4.6Vp-p (REC/P.B)	41	H 0.25V p-p (P.B)	67	H 1.2V p-p (REC/P.B)
5	H 0.45Vp-p (REC) 0.4Vp-p (P.B)	43	V 0.3Vp-p (P.B)	71	H 0.3V p-p (REC)
7	H 0.25Vp-p (P.B)	47	H 0.2Vp-p (P.B)	78	1.0Vp-p (REC)
10	H 2.0Vp-p (REC/P.B)	48	70mVp-p (P.B)		
11	V 4.6Vp-p (STILL)	50	H 0.2Vp-p (P.B)		
16	H 0.35Vp-p (REC)	58	H 0.25Vp-p (P.B)		
16	H 0.3Vp-p (P.B)	61	H 50mVp-p (P.B)		
18, 19	H 0.4Vp-p (P.B)	62	V 1.2Vp-p (REC) 1.0Vp-p (P.B)		
20	V 0.25Vp-p (P.B)	63	V 0.2Vp-p (P.B)		
29 · 30	H 0.15Vp-p (REC) 0.1Vp-p (P.B)	64	H 1.2V p-p (REC/P.B)		

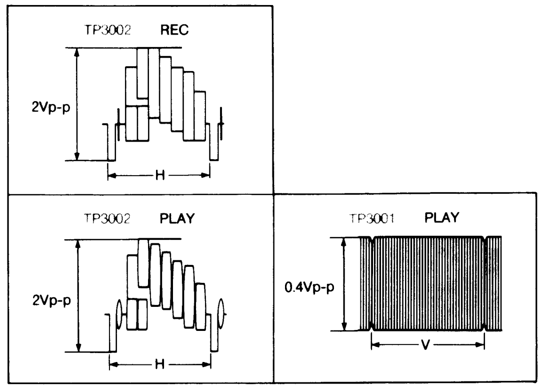
IC801 (VEFC012)



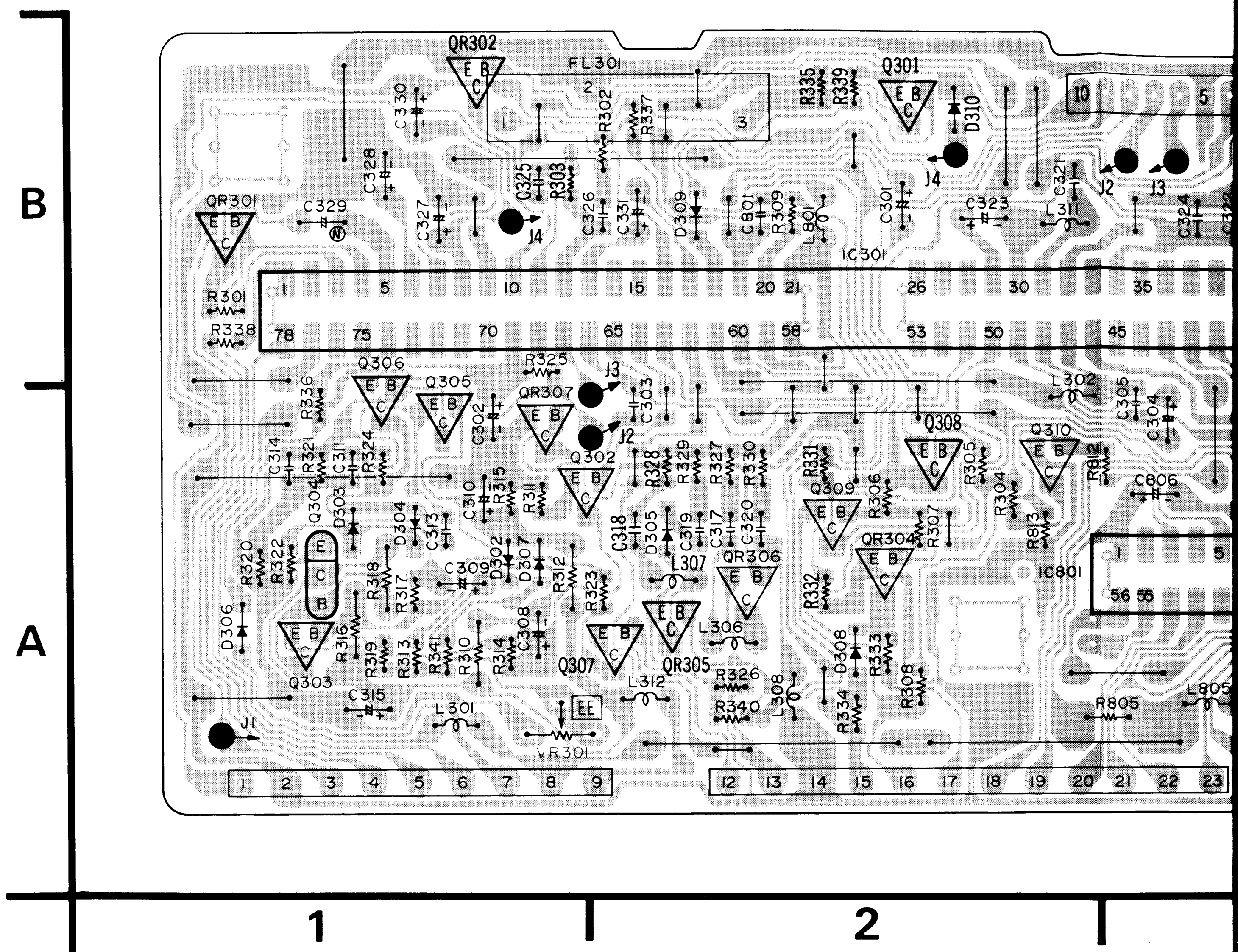
PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
3	H 4.8Vp-p (REC/P.B)	32	H 1.0V p-p (REC/P.B)
5	V 4.8Vp-p (REC/P.B)	34	H 0.3V p-p (P.B)
17	H 1.0Vp-p (REC) 0.9Vp-p (P.B)	38	0.55Vp-p (REC/P.B)
18	H 0.8Vp-p (REC) 0.4Vp-p (P.B)	39	0.7Vp-p (REC/P.B)
20	H 0.25Vp-p (REC/P.B)	41	H 0.7Vp-p (REC/P.B)
22	H 0.5Vp-p (REC) 0.15Vp-p (P.B)	44	H 0.7Vp-p (REC/P.B)
23	H 0.1Vp-p (REC) 0.6Vp-p (P.B)	50	H 4.8Vp-p (REC/P.B)
24	H 150mV p-p (P.B)	53	V 5.0V p-p (REC/P.B)
30, 31	H 1.1V p-p (REC)	54	H 4.8Vp-p (REC)
30, 31	H 1.0V p-p (P.B)	54	H 4.5V p-p (P.B)
		56	H 4.8Vp-p (REC/P.B)

LUMINANCE & CHROMINANCE PACK

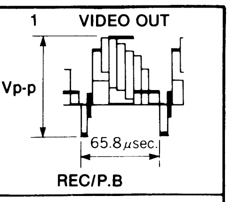

1 VIDEO OUT
2.0Vp-p
65.8μsec.
REC/P.B
3 VIDEO IN
1 Vp-p
65.8μsec.
REC/P.B
4 VSS
0.6Vp-p
16.7msec.
REC/P.B
5 HSS OUT
5Vp-p
65.8μsec.
REC/P.B
6 REC Y
0.9Vp-p
REC
12 HSW
5.0Vp-p
16.7msec.
REC/P.B
16 ART V.SYNC
5Vp-p
16.7msec.
PAUSE/STILL
18 Y RF IN
240mVp-p
16.7msec.
P.B
20 HSS IN
5.0Vp-p
65.8μsec.
REC/P.B
23 SP/LP/SLP
150mVp-p
33.4msec.
REC/P.B
32 P.B CHROMA IN
0.6Vp-p
65.8μsec.
P.B
19 ROTARY SW
5.0Vp-p
33.4msec.
REC/P.B
21 FSI
5Vp-p
16.7msec.
REC/P.B
29 3.58M
0.6Vp-p
REC/P.B
34 REC CHROMA
0.3Vp-p
65.8μsec.
REC

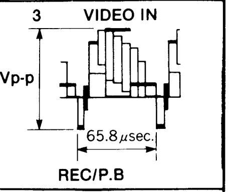

TP3002 REC
2Vp-p
H
TP3002 PLAY
2Vp-p
H
TP3001 PLAY
0.4Vp-p
V

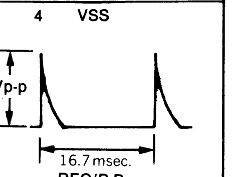
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03406B)

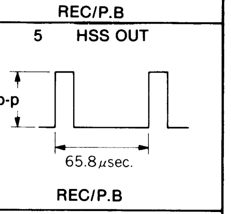

B
A
1
2
QR302
FL301
Q301
QR301
IC301
IC801
Q303
Q304
Q305
Q306
Q307
Q308
Q309
Q310
Q302
QR304
QR305
QR306
QR307
J1
J2
J3
J4
L301
L302
L306
L307
L308
L311
L312
L801
L805
VR301
EE
R301
R338
R805
1 2 3 4 5 6 7 8 9
12 13 14 15 16 17 18 19 20 21 22 23

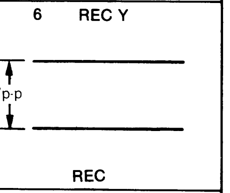
INANCE &
ROMINANCE PACK

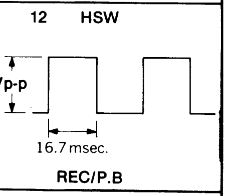


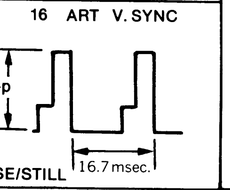


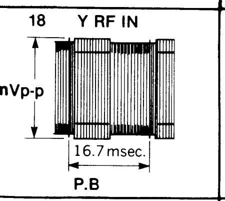


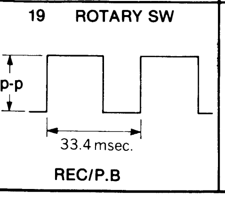




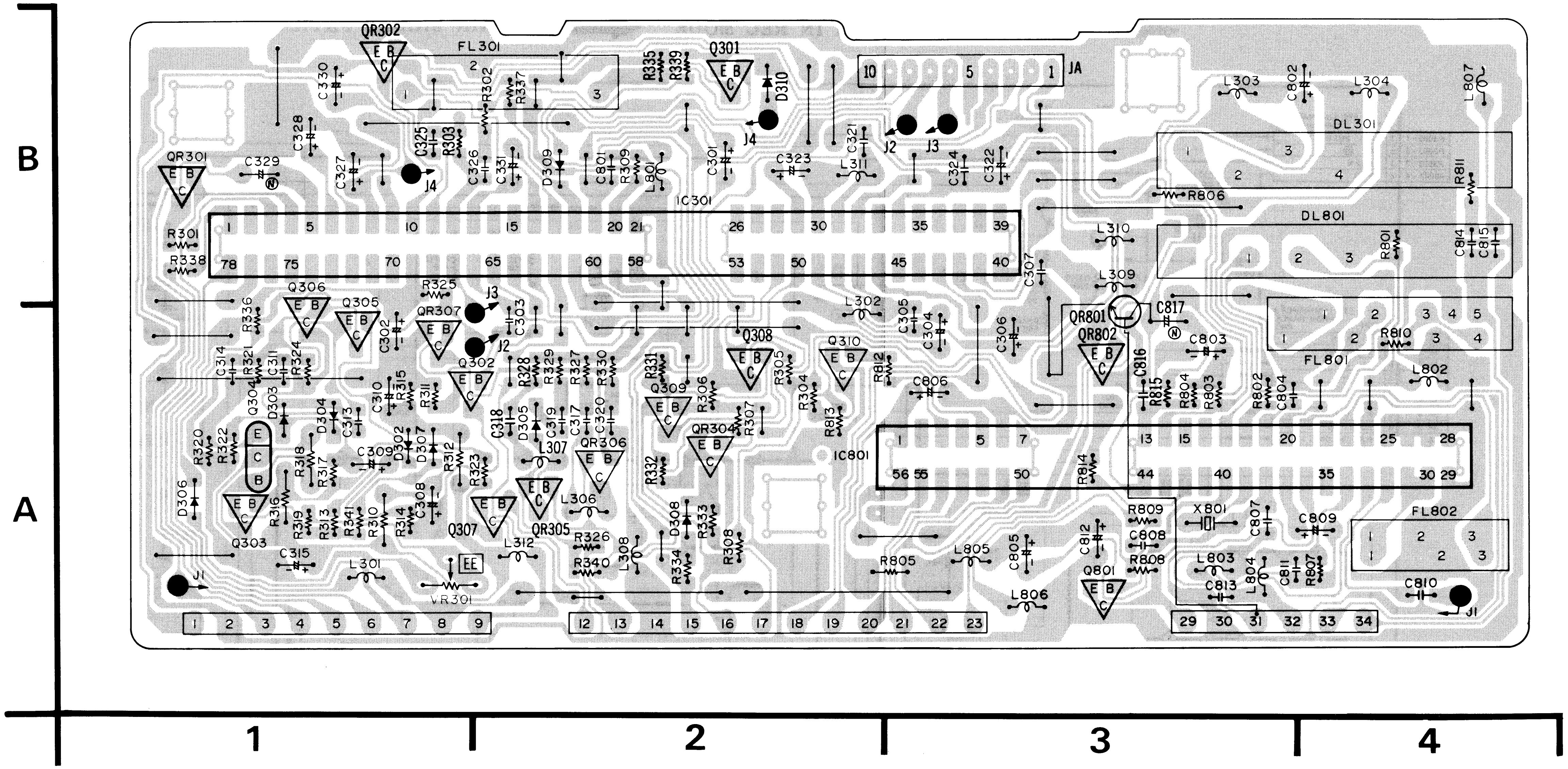






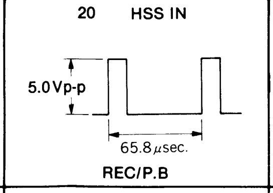


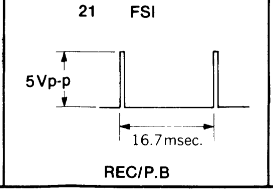
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03406B)

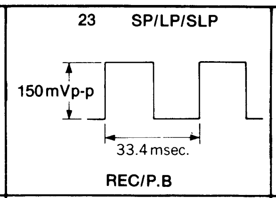

B
A
1
2
3
4
QR302
E B C
FL301
Q301
D310
10 5 1 JA
L303
C802
L304
L807
C330
C328
R302
R337
R335
R339
J4
J2
J3
C321
DL301
QR301
C329
C327
C325
R303
C326
C331
D309
C801
R309
L801
C301
C323
L311
C324
C322
R806
R811
IC301
R301
R338
1 5 10 15 20 21 26 30 35 39
78 75 70 65 60 58 53 50 45 40
L310
DL801
R801
C814
C815
C307
L309
Q306
R325
Q305
QR307
C303
L302
C305
C304
C306
QR801
C817
QR802
C803
FL801
R810
R336
C302
Q308
Q310
C314
R321
C311
R324
Q302
R328
R329
R327
R330
R331
R305
R812
C816
C806
R815
R804
R803
R802
C804
L802
Q304
D303
C310
R315
R311
Q309
R306
R304
D304
C313
C318
D305
C319
C317
C320
R307
R813
R320
R322
C309
D302
D307
R312
QR306
QR304
IC801
1 5 7 13 15 20 25 28
56 55 50 44 40 35 30 29
R318
R317
R323
L307
R332
R814
D306
R316
R319
R313
R341
R310
R314
C308
L306
D308
R333
R809
X801
C807
C809
FL802
Q303
Q307
QR305
R326
L308
R308
C808
R808
C812
C805
L805
C315
L312
R340
R334
R805
Q801
L803
L804
C811
R807
C813
C810
J1
L301
EE
VR301
L806
1 2 3 4 5 6 7 8 9
12 13 14 15 16 17 18 19 20 21 22 23
29 30 31 32 33 34

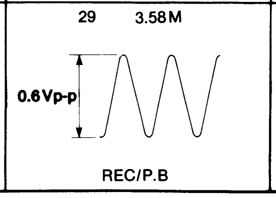
LUMINANCE & CHROMINANCE PACK C.B.A.	
Transistor	
Q301	B-2
Q302	A-1
Q303	A-1
Q304	A-1
Q305	A-1
Q306	A-1
Q307	A-1
Q308	A-2
Q309	A-2
Q310	A-2
Q801	A-3
Transistor & Resistor	
QR301	B-1
QR302	B-1
QR304	A-2
QR305	A-2
QR306	A-2
QR307	A-1
QR801	A-3
QR802	A-3
Integrated Circuit	
IC301	B-2
IC801	A-2
Adjustment	
VR301	A-1

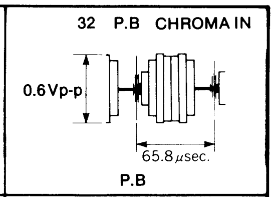
ADDRESS INFORMATION

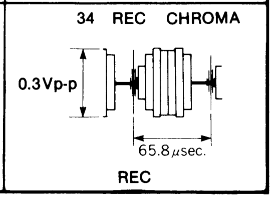


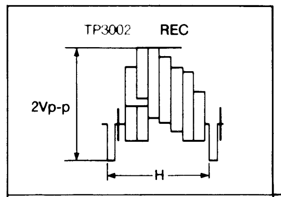


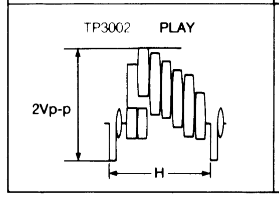


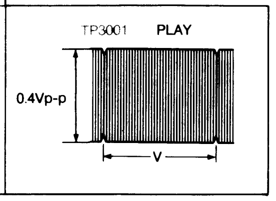




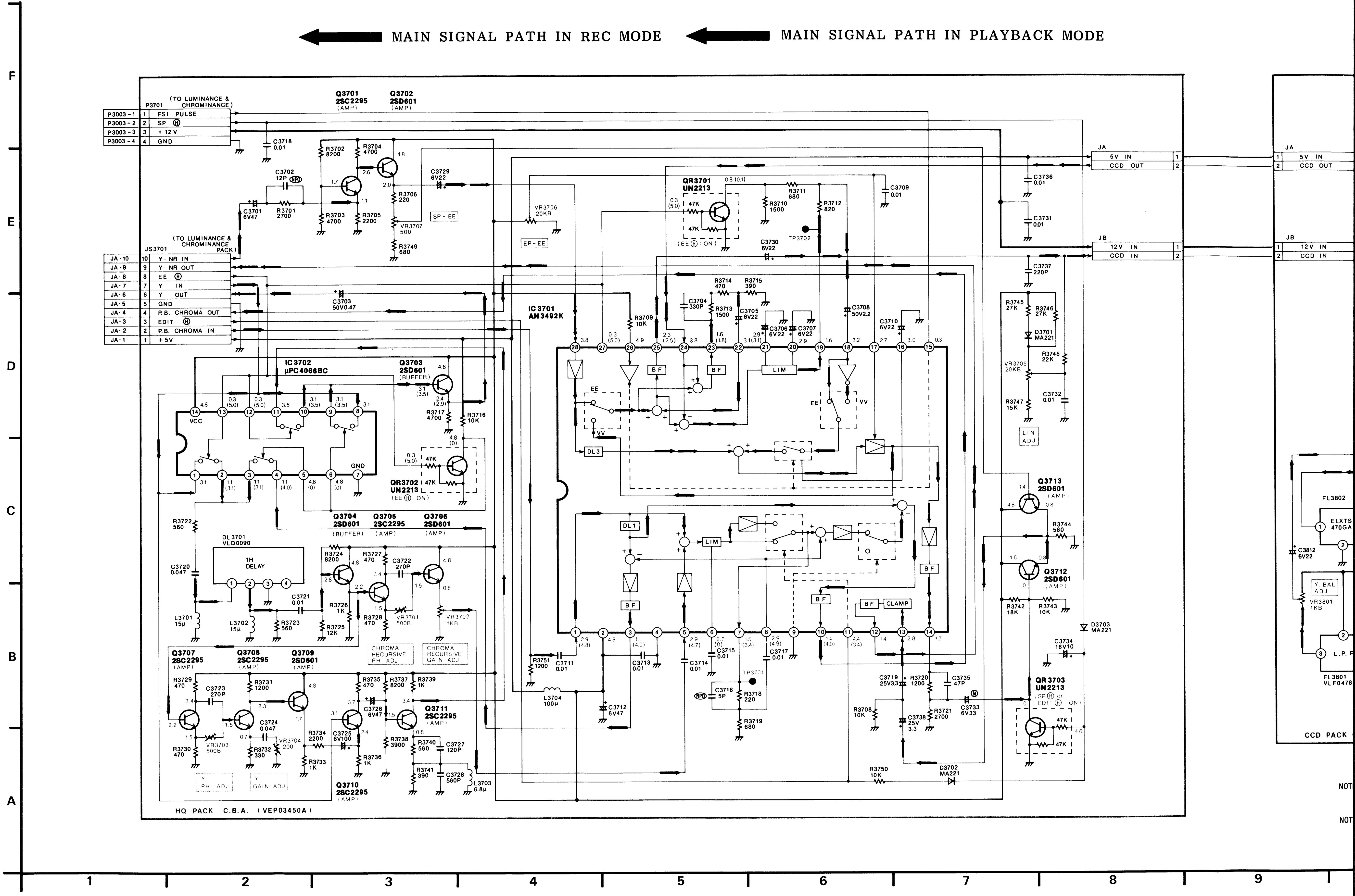






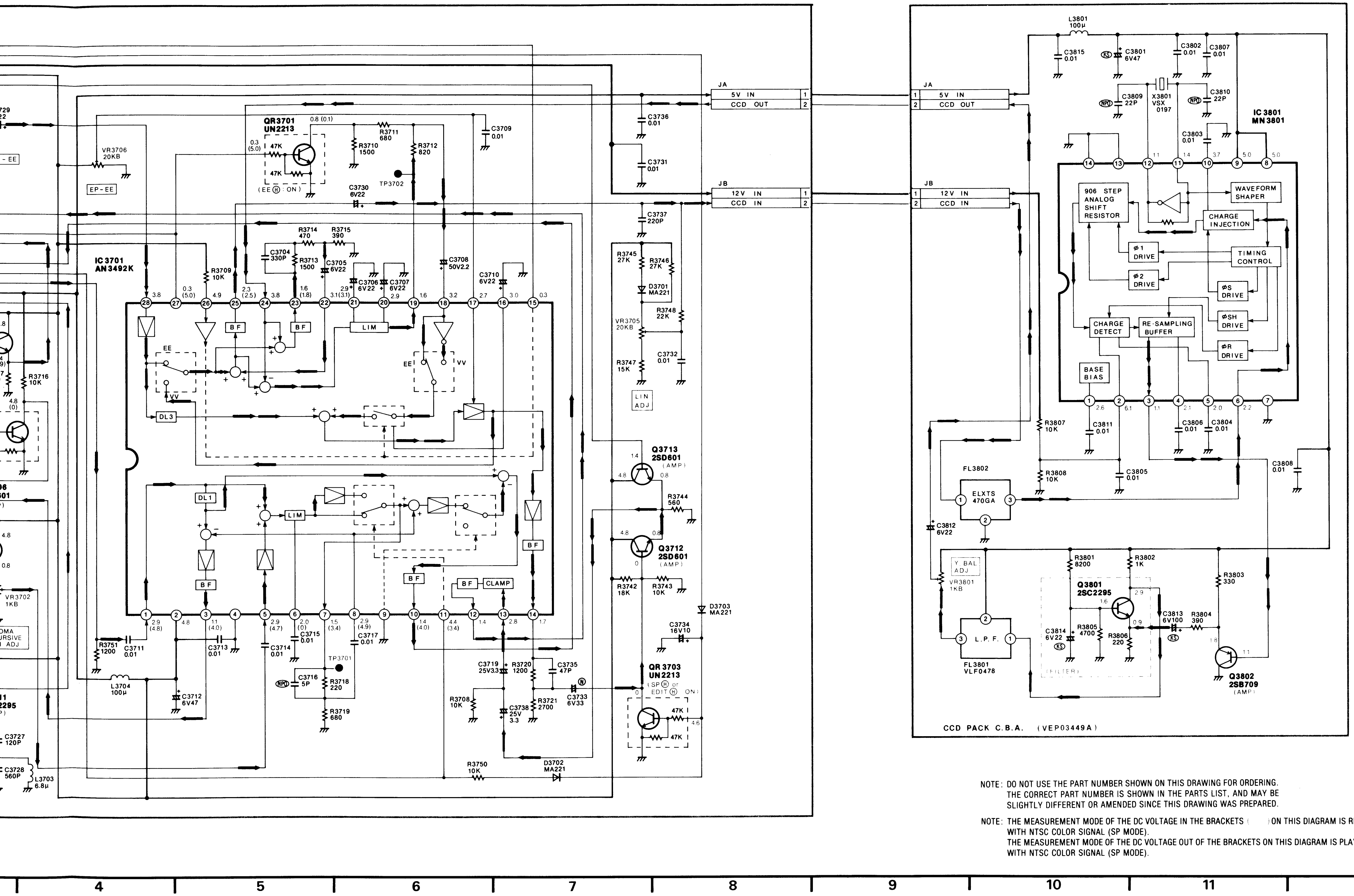


HQ PACK & CCD PACK SCHEMATIC DIAGRAM


MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
P3701 (TO LUMINANCE & CHROMINANCE)
P3003-1 1 FSI PULSE
P3003-2 2 SP Ⓗ
P3003-3 3 +12V
P3003-4 4 GND
JS3701 (TO LUMINANCE & CHROMINANCE PACK)
JA-10 10 Y-NR IN
JA-9 9 Y-NR OUT
JA-8 8 EE Ⓗ
JA-7 7 Y IN
JA-6 6 Y OUT
JA-5 5 GND
JA-4 4 P.B. CHROMA OUT
JA-3 3 EDIT Ⓗ
JA-2 2 P.B. CHROMA IN
JA-1 1 +5V
Q3701 2SC2295 (AMP)
Q3702 2SD601 (AMP)
C3718 0.01
R3702 8200
R3704 4700
C3702 12P NPO
C3701 6V47
R3701 2700
R3703 4700
R3705 2200
R3706 220
VR3707 500
R3749 680
C3729 6V22
SP-EE
VR3706 20KB
EP-EE
C3703 50V0.47
IC3701 AN3492K
IC3702 μPC4066BC
VCC
GND
Q3703 2SD601 (BUFFER)
R3717 4700
R3716 10K
QR3702 UN2213 (EE Ⓗ ON)
47K
Q3704 2SD601 (BUFFER)
Q3705 2SC2295 (AMP)
Q3706 2SD601 (AMP)
R3722 560
DL3701 VLD0090
1H DELAY
C3720 0.047
L3701 15μ
L3702 15μ
C3721 0.01
R3723 560
R3724 8200
R3726 1K
R3725 12K
R3727 470
C3722 270P
R3728 470
VR3701 500B
VR3702 1KB
CHROMA RECURSIVE PH ADJ
CHROMA RECURSIVE GAIN ADJ
Q3707 2SC2295 (AMP)
Q3708 2SC2295 (AMP)
Q3709 2SD601 (AMP)
R3729 470
C3723 270P
R3731 1200
C3724 0.047
VR3703 500B
VR3704 200
R3730 470
R3732 330
R3733 1K
R3734 2200
Y PH ADJ
Y GAIN ADJ
C3725 6V100
C3726 6V47
R3735 470
R3737 8200
R3739 1K
R3736 1K
R3738 3900
R3740 560
C3727 120P
R3741 390
C3728 560P
L3703 6.8μ
Q3710 2SC2295 (AMP)
Q3711 2SC2295 (AMP)
HQ PACK C.B.A. (VEP03450A)
QR3701 UN2213 (EE Ⓗ ON)
R3711 680
R3710 1500
R3712 820
C3709 0.01
C3730 6V22
TP3702
R3714 470
R3715 390
C3704 330P
R3713 1500
C3705 6V22
C3706 6V22
C3707 6V22
C3708 50V2.2
C3710 6V22
R3709 10K
EE
VV
BF
LIM
DL3
DL1
CLAMP
R3751 1200
C3711 0.01
L3704 100μ
C3712 6V47
C3713 0.01
C3714 0.01
C3715 0.01
C3716 5P NPO
R3718 220
R3719 680
TP3701
C3717 0.01
C3719 25V33
R3720 1200
C3735 47P
R3708 10K
C3738 25V 3.3
R3721 2700
C3733 6V33
R3750 10K
D3702 MA221
JA
5V IN
CCD OUT
JB
12V IN
CCD IN
C3736 0.01
C3731 0.01
C3737 220P
R3745 27K
R3746 27K
D3701 MA221
R3748 22K
VR3705 20KB
R3747 15K
C3732 0.01
LIN ADJ
Q3713 2SD601 (AMP)
R3744 560
Q3712 2SD601 (AMP)
R3742 18K
R3743 10K
D3703 MA221
C3734 16V10
QR3703 UN2213 (SP Ⓗ or EDIT Ⓗ ON)
FL3802
ELXTS 470GA
C3812 6V22
Y BAL ADJ
VR3801 1KB
L.P.F
FL3801 VLF0478
CCD PACK
NOT
NOT

RAM

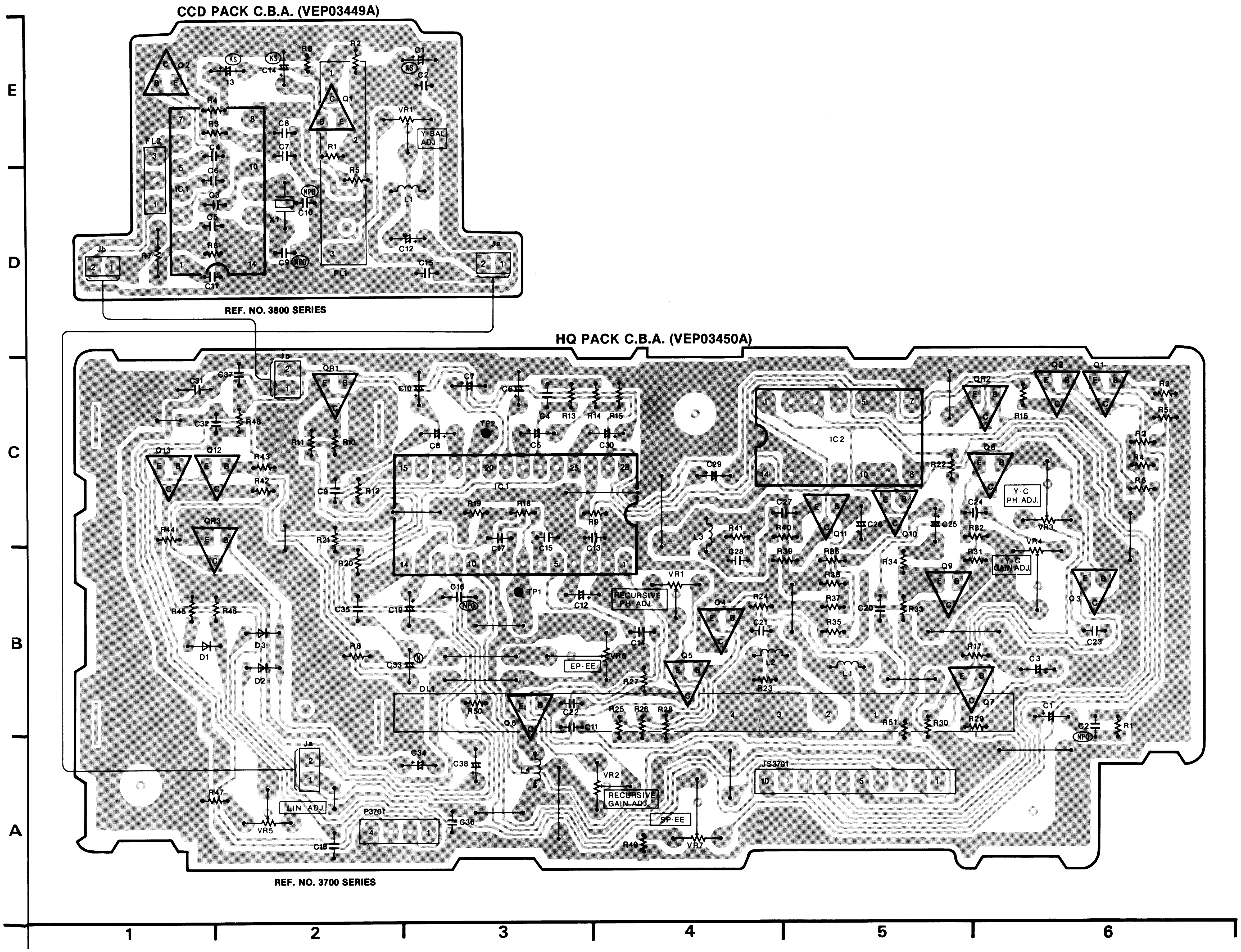
SIGNAL PATH IN REC MODE ◀ MAIN SIGNAL PATH IN PLAYBACK MODE


IC 3701
AN3492K
QR3701
UN2213
(EE Ⓗ : ON)
VR3706
20KB
EP-EE
TP3702
TP3701
Q3713
2SD601
(AMP)
Q3712
2SD601
(AMP)
QR3703
UN2213
(SP Ⓗ or EDIT Ⓗ : ON)
VR3705
20KB
LIN ADJ
D3701
MA221
D3702
MA221
D3703
MA221
L3704
100μ
JA
5V IN
CCD OUT
JB
12V IN
CCD IN
LIM
BF
CLAMP
DL1
DL3
EE
VV
L3801
100μ
X3801
VSX 0197
IC 3801
MN3801
906 STEP ANALOG SHIFT RESISTOR
WAVEFORM SHAPER
CHARGE INJECTION
TIMING CONTROL
φ1 DRIVE
φ2 DRIVE
φS DRIVE
φSH DRIVE
φR DRIVE
CHARGE DETECT
RE-SAMPLING BUFFER
BASE BIAS
FL3802
ELXTS 470GA
Y BAL ADJ
VR3801
1KB
FL3801
VLF0478
L.P.F.
Q3801
2SC2295
(FILTER)
Q3802
2SB709
(AMP)
CCD PACK C.B.A. (VEP03449A)
4
5
6
7
8
9
10
11
12

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH NTSC COLOR SIGNAL (SP MODE).
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH NTSC COLOR SIGNAL (SP MODE).

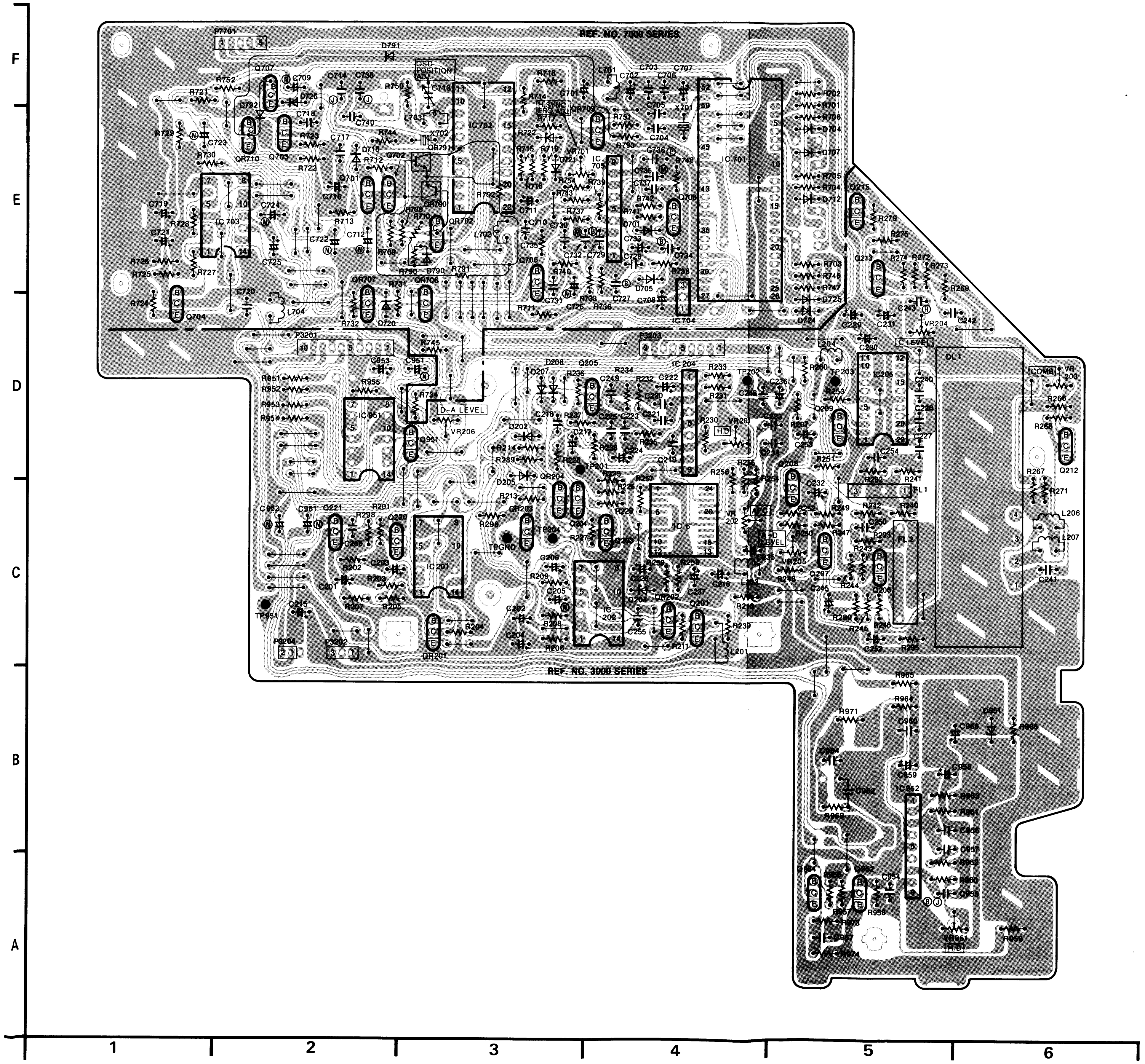
HQ PACK C.B.A. (VEP03450A) & CCD PACK C.B.A. (VEP03449A)


CCD PACK C.B.A. (VEP03449A)
REF. NO. 3800 SERIES
HQ PACK C.B.A. (VEP03450A)
REF. NO. 3700 SERIES
Y BAL ADJ.
Y-C PH ADJ.
Y-C GAIN ADJ.
RECURSIVE PH ADJ.
RECURSIVE GAIN ADJ.
EP-EE
SP-EE
LIN ADJ.
IC1
IC2
FL1
FL2
X1
Ja
Jb
JS3701
P3701
DL1
TP1
TP2
E
D
C
B
A
1
2
3
4
5
6

HQ PACK & CCD PACK C.B.A.	
Transistor	
Q3701	C-6
Q3702	C-6
Q3703	B-6
Q3704	B-4
Q3705	B-4
Q3706	B-3
Q3707	B-6
Q3708	C-6
Q3709	B-5
Q3710	B-5
Q3711	B-5
Q3712	C-1
Q3713	C-1
Q3801	E-2
Q3802	E-1
Transistor & Resistor	
QR3701	C-2
QR3702	C-6
QR3703	C-1
Integrated Circuit	
IC3701	C-3
IC3702	C-5
IC3801	D-1
Test Point	
TP3701	B-3
TP3702	C-3
Adjustment	
VR3701	B-4
VR3702	A-4
VR3703	C-6
VR3704	C-6
VR3705	A-2
VR3706	B-4
VR3707	A-4
VR3801	E-2

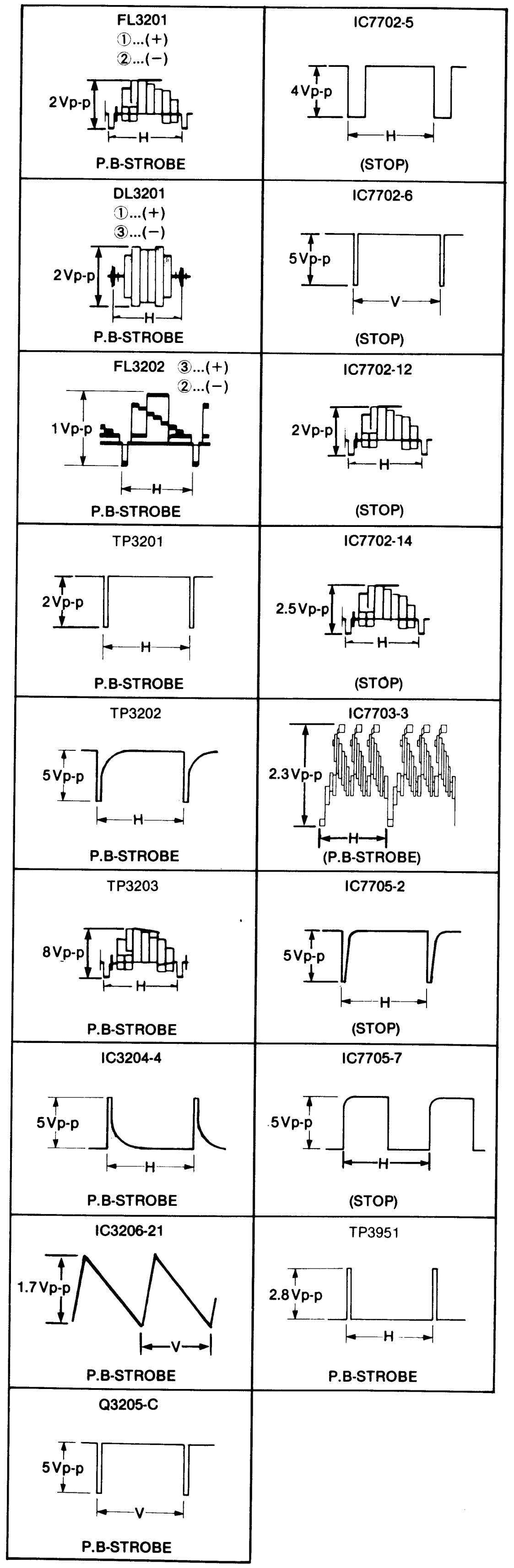
ADDRESS INFORMATION

DIGITAL AFC & OSD C.B.A. (VEP07407A)

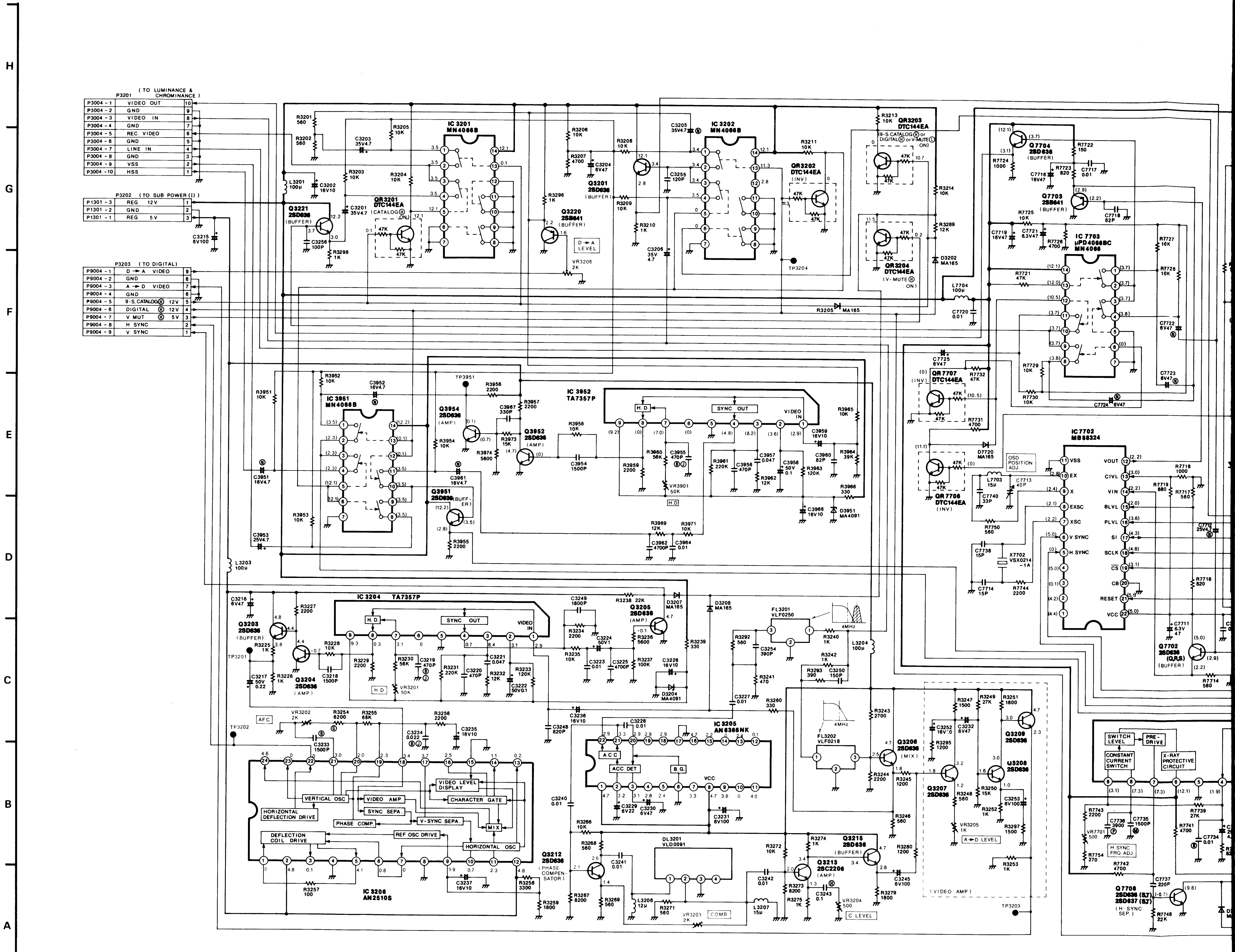

REF. NO. 7000 SERIES
REF. NO. 3000 SERIES
P7701
P3201
P3203
P3204
P3202
IC 701
IC 702
IC 703
IC 704
IC 705
IC 951
IC 952
IC 201
IC 202
IC 204
IC 205
IC 6
OSD POSITION ADJ
H.SYNC FREQ ADJ
D-A LEVEL
C LEVEL
COMB
H.D
AFC
H-D LEVEL
DL 1
FL 1
FL 2
TP951
TPGND
TP201
TP202
TP203
TP204
VR206
VR201
VR202
VR203
VR204
VR951
VR701
F
E
D
C
B
A
1
2
3
4
5
6

DIGITAL AFC & OSD C.B.A.	
Transistor	
Q3201	C-4
Q3203	C-4
Q3204	C-3
Q3205	D-4
Q3206	C-5
Q3207	C-5
Q3208	D-5
Q3209	D-5
Q3212	D-6
Q3213	E-5
Q3215	E-5
Q3220	C-2
Q3221	C-2
Q3951	D-3
Q3952	A-5
Q3954	A-5
Q7701	E-2
Q7702	E-2
Q7703	E-2
Q7704	D-1
Q7705	E-3
Q7706	E-4
Q7707	F-2
Transistor & Resistor	
QR3201	C-3
QR3202	C-4
QR3203	C-3
QR3204	D-3
QR7702	E-3
QR7706	E-3
QR7707	E-2
QR7709	E-3
QR7710	E-2
QR7790	E-3
QR7791	E-3
Integrated Circuit	
IC3201	C-3
IC3202	C-4
IC3204	D-4
IC3205	D-5
IC3206	C-4
IC3951	D-2
IC3952	B-5
IC7701	E-4
IC7702	E-3
IC7703	E-2
IC7704	D-4
IC7705	E-4
Test Point	
TP3201	D-4
TP3202	D-4
TP3203	D-5
TP3204	C-3
TP3951	C-2
TP GND	C-3
Adjustment	
VR3201	D-4
VR3202	C-4
VR3203	D-6
VR3204	D-5
VR3205	C-5
VR3206	D-3
VR3951	A-6
VR7701	E-4

ADDRESS INFORMATION


FL3201
①...(+)
②...(−)
2Vp-p
H
P.B-STROBE
IC7702-5
4Vp-p
H
(STOP)
DL3201
①...(+)
③...(−)
2Vp-p
H
P.B-STROBE
IC7702-6
5Vp-p
V
(STOP)
FL3202 ③...(+)
②...(−)
1Vp-p
H
P.B-STROBE
IC7702-12
2Vp-p
(STOP)
TP3201
2Vp-p
H
P.B-STROBE
IC7702-14
2.5Vp-p
H
(STOP)
TP3202
5Vp-p
H
P.B-STROBE
IC7703-3
2.3Vp-p
H
(P.B-STROBE)
TP3203
8Vp-p
H
P.B-STROBE
IC7705-2
5Vp-p
H
(STOP)
IC3204-4
5Vp-p
H
P.B-STROBE
IC7705-7
5Vp-p
H
(STOP)
IC3206-21
1.7Vp-p
V
P.B-STROBE
TP3951
2.8Vp-p
H
P.B-STROBE
Q3205-C
5Vp-p
V
P.B-STROBE

DIGITAL AFC & OSD SCHEMATIC DIAGRAM

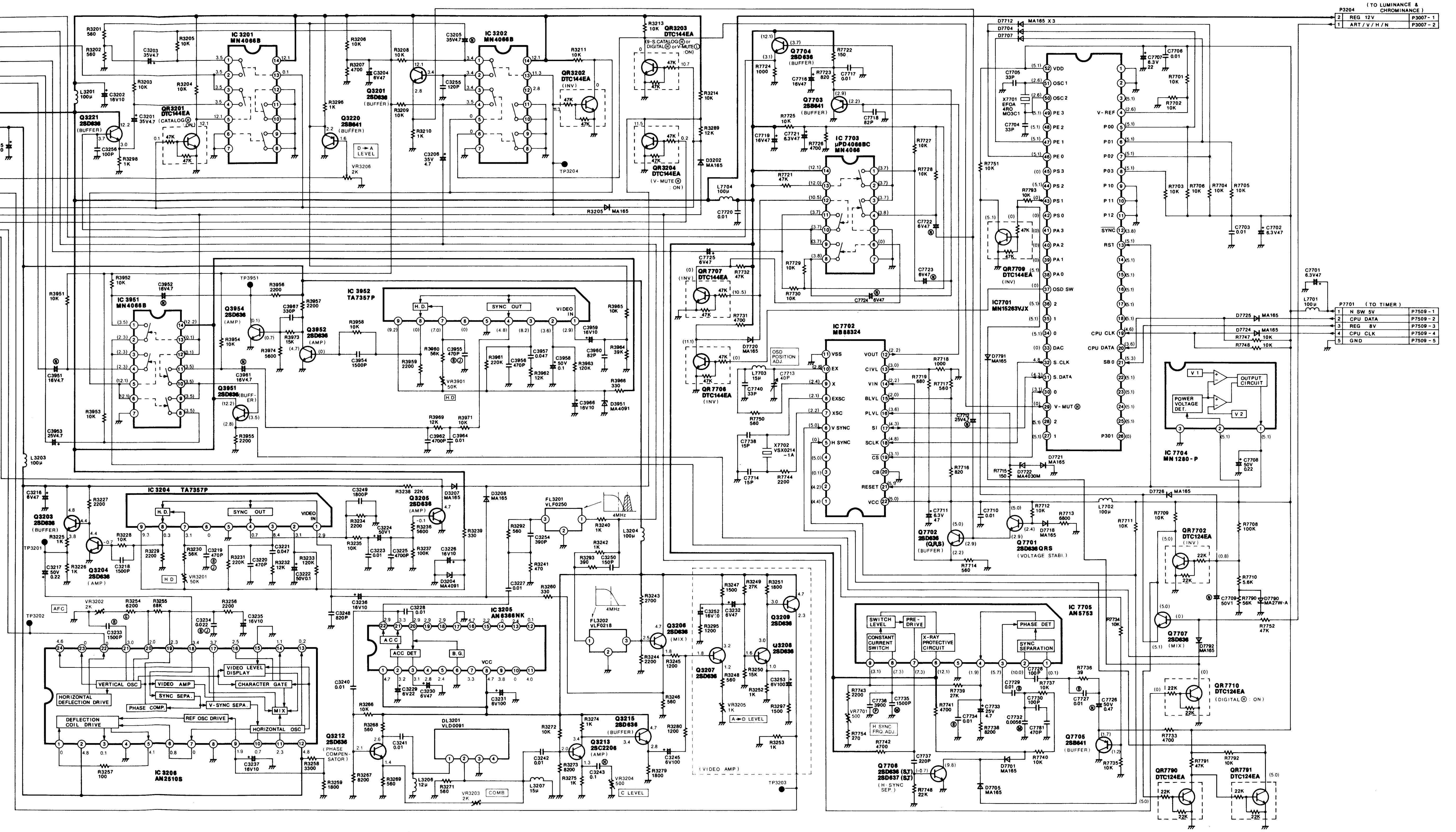

H
G
F
E
D
C
B
A
P3201 (TO LUMINANCE & CHROMINANCE)
P3004-1 VIDEO OUT 10
P3004-2 GND 9
P3004-3 VIDEO IN 8
P3004-4 GND 7
P3004-5 REC VIDEO 6
P3004-6 GND 5
P3004-7 LINE IN 4
P3004-8 GND 3
P3004-9 VSS 2
P3004-10 HSS 1
P3202 (TO SUB POWER (I))
P1301-3 REG 12V 1
P1301-2 GND 2
P1301-1 REG 5V 3
P3203 (TO DIGITAL)
P9004-1 D→A VIDEO 9
P9004-2 GND 8
P9004-3 A→D VIDEO 7
P9004-4 GND 6
P9004-5 9-S.CATALOG Ⓗ 12V 5
P9004-6 DIGITAL Ⓡ 12V 4
P9004-7 V MUT Ⓡ 5V 3
P9004-8 H SYNC 2
P9004-9 V SYNC 1
IC 3201 MN4066B
IC 3202 MN4066B
Q3221 2SD636 (BUFFER)
QR3201 DTC144EA (CATALOG Ⓗ ON)
Q3201 2SD636 (BUFFER)
Q3220 2SB641 (BUFFER)
D→A LEVEL
VR3206 2K
QR3202 DTC144EA (INV)
TP3204
QR3203 DTC144EA
9-S.CATALOG Ⓗ or DIGITAL Ⓡ or V-MUTE Ⓡ ON
QR3204 DTC144EA (V-MUTE Ⓡ ON)
D3202 MA165
R3205 MA165
Q7704 2SD636 (BUFFER)
Q7703 2SB641 (BUFFER)
IC 7703 µPD4066BC MN4066
IC 3951 MN4066B
Q3954 2SD636 (AMP)
Q3952 2SD636 (AMP)
Q3951 2SD636 (BUFFER)
TP3951
IC 3952 TA7357P
SYNC OUT
VIDEO IN
H.D
VR3901 50K
D3951 MA4091
QR7707 DTC144EA (INV)
QR7706 DTC144EA (INV)
D7720 MA165
OSD POSITION ADJ
X7702 VSX0214 −1A
IC7702 MB88324
VSS VOUT EX CIVL X VIN EXSC BLVL XSC PLVL V SYNC SI H SYNC SCLK CS CB RESET VCC
Q7702 2SD636 (Q,R,S) (BUFFER)
IC 3204 TA7357P
Q3203 2SD636 (BUFFER)
Q3204 2SD636 (AMP)
TP3201
VR3201 50K
Q3205 2SD636 (AMP)
D3207 MA165
D3208 MA165
D3204 MA4091
FL3201 VLF0250
4MHz
TP3202
AFC
VR3202 2K
IC 3205 AN5366NK
ACC
ACC DET
B.G.
VCC
FL3202 VLF0218
Q3206 2SD636 (MIX)
Q3207 2SD636
Q3208 2SD636
Q3209 2SD636
VR3205 1K
A→D LEVEL
(VIDEO AMP)
TP3203
IC 3206 AN2510S
VERTICAL OSC
VIDEO AMP
VIDEO LEVEL DISPLAY
CHARACTER GATE
HORIZONTAL DEFLECTION DRIVE
SYNC SEPA.
PHASE COMP.
V-SYNC SEPA
DEFLECTION COIL DRIVE
REF OSC DRIVE
MIX
HORIZONTAL OSC
Q3212 2SD636 (PHASE COMPEN-SATOR)
DL3201 VLD0091
VR3203 2K
COMB
Q3213 2SC2206 (AMP)
Q3215 2SD636 (BUFFER)
VR3204 500
C LEVEL
SWITCH LEVEL
PRE-DRIVE
CONSTANT CURRENT SWITCH
X-RAY PROTECTIVE CIRCUIT
VR7701 500
H SYNC FRQ ADJ
Q7705 2SD636 (S,T) 2SD637 (S,T) (H SYNC SEP.)

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON TH
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS
WITH NTSC COLOR SIGNAL (SP MODE).

1 2 3 4 5 6 7 8 9 10

SD SCHEMATIC DIAGRAM

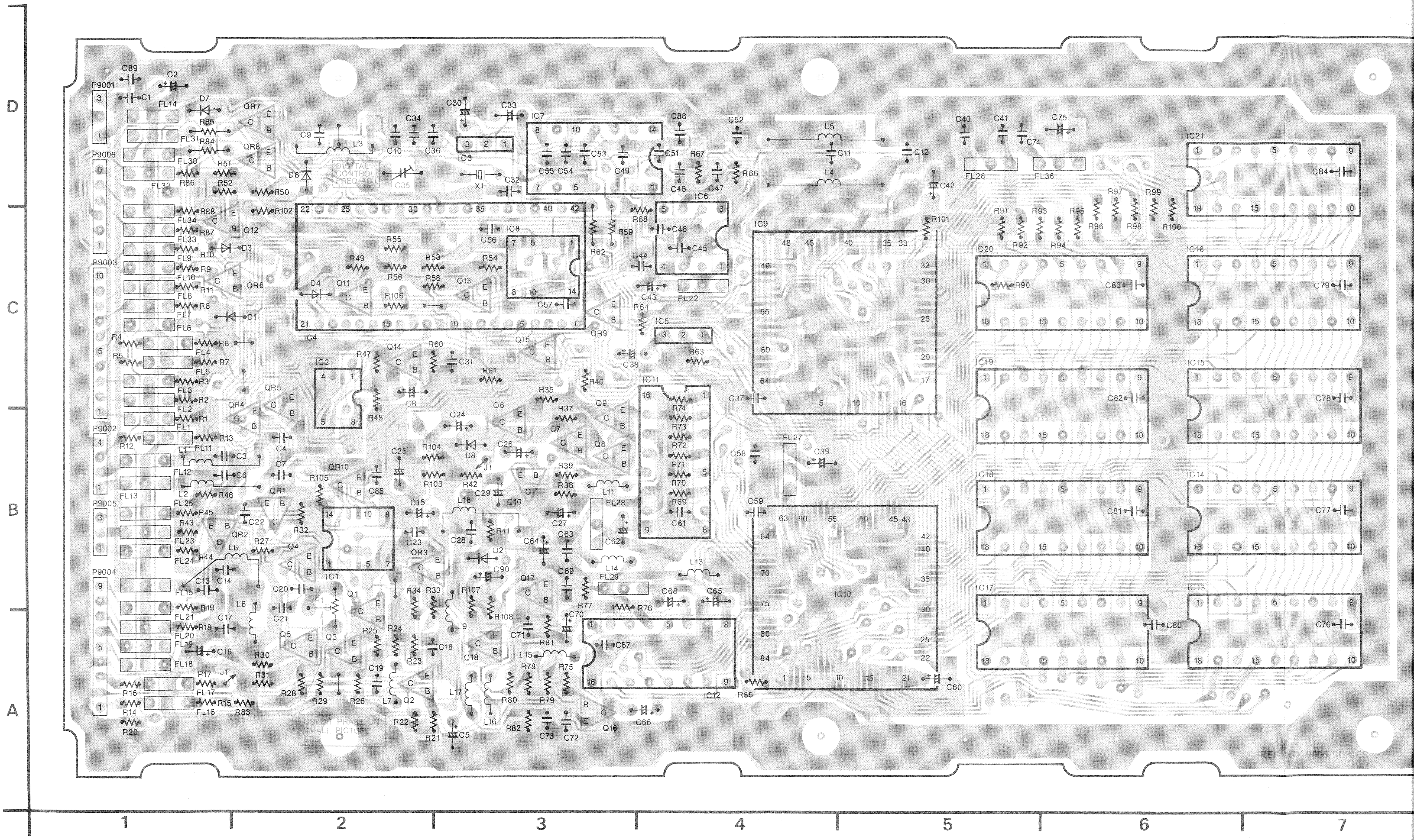

IC 3201 MN4066B
QR3201 DTC144EA (CATALOG)
Q3221 2SD636 (BUFFER)
Q3220 2SB641 (BUFFER)
D→A LEVEL
VR3206 2K
IC 3202 MN4066B
Q3201 2SD636 (BUFFER)
QR3202 DTC144EA (INV)
TP3204
QR3203 DTC144EA
QR3204 DTC144EA (V-MUTE ON)
D3202 MA165
R3205 MA165
IC 3951 MN4066B
Q3954 2SD636 (AMP)
Q3952 2SD636 (AMP)
Q3951 2SD636 (BUFFER)
IC 3952 TA7357P
H.D.
SYNC OUT
VIDEO IN
VR3901 50K
D3951 MA4091
TP3951
L3203 100μ
IC 3204 TA7357P
Q3203 2SD636 (BUFFER)
Q3204 2SD636 (AMP)
Q3205 2SD636 (AMP)
D3207 MA165
D3208 MA165
D3204 MA4091
VR3201 50K
TP3201
TP3202
AFC
VR3202 2K
IC 3206 AN2510S
HORIZONTAL DEFLECTION DRIVE
VERTICAL OSC
VIDEO AMP
SYNC SEPA.
PHASE COMP.
V-SYNC SEPA
VIDEO LEVEL DISPLAY
CHARACTER GATE
MIX
DEFLECTION COIL DRIVE
REF OSC DRIVE
HORIZONTAL OSC
IC 3205 AN6366NK
ACC
ACC DET
B.G.
VCC
FL3201 VLF0250
FL3202 VLF0218
4MHz
Q3212 2SD636 (PHASE COMPENSATOR)
DL3201 VLD0091
VR3203 2K
COMB
Q3213 2SC2206 (AMP)
Q3215 2SD636 (BUFFER)
VR3204 500
C LEVEL
Q3206 2SD636 (MIX)
Q3207 2SD636
Q3208 2SD636
Q3209 2SD636
VR3205 1K
A→D LEVEL
(VIDEO AMP)
TP3203
Q7704 2SD636 (BUFFER)
Q7703 2SB641 (BUFFER)
IC 7703 μPD4066BC MN4066
QR7707 DTC144EA (INV)
QR7706 DTC144EA (INV)
D7720 MA165
OSD POSITION ADJ
IC7702 MB88324
VSS EX X EXSC XSC V SYNC H SYNC
VOUT CIVL VIN BLVL PLVL SI SCLK CS CB RESET VCC
X7702 VSX0214-1A
Q7702 2SD636 (Q,R,S) (BUFFER)
Q7701 2SD636QRS (VOLTAGE STABI.)
D7718 MA165
D7721 MA165
D7722 MA4030M
D7791 MA165
IC7701 MN15263VJX
QR7709 DTC144EA (INV)
X7701 EFOA 4RO MO3C1
VDD OSC1 OSC2 PE3 PE2 PE1 PE0 PS3 PS2 PS1 PS0 PA3 PA2 PA1 PA0 OSD SW DAC S.CLK S.DATA V-MUT
V-REF P00 P01 P02 P03 P10 P11 P12 SYNC RST CPU CLK CPU DATA SB0 P301
D7712 MA165 X3
D7704
D7707
P3204 (TO LUMINANCE & CHROMINANCE)
REG 12V P3007-1
ART/V/H/N P3007-2
P7701 (TO TIMER)
N SW 5V P7509-1
CPU DATA P7509-2
REG 8V P7509-3
CPU CLK P7509-4
GND P7509-5
D7725 MA165
D7724 MA165
IC 7704 MN1280-P
V1 V2
OUTPUT CIRCUIT
POWER VOLTAGE DET.
D7726 MA165
QR7702 DTC124EA (INV)
Q7707 2SD636 (MIX)
D7790 MA27W-A
D7792 MA165
QR7710 DTC124EA (DIGITAL ON)
IC 7705 AN5753
SWITCH LEVEL
PRE-DRIVE
CONSTANT CURRENT SWITCH
X-RAY PROTECTIVE CIRCUIT
PHASE DET
SYNC SEPARATION
VR7701 500
H SYNC FRQ ADJ
Q7706 2SD636(S,T) 2SD637(S,T) (H-SYNC SEP.)
D7701 MA165
D7705 MA165
Q7705 2SB641 (BUFFER)
QR7790 DTC124EA
QR7791 DTC124EA

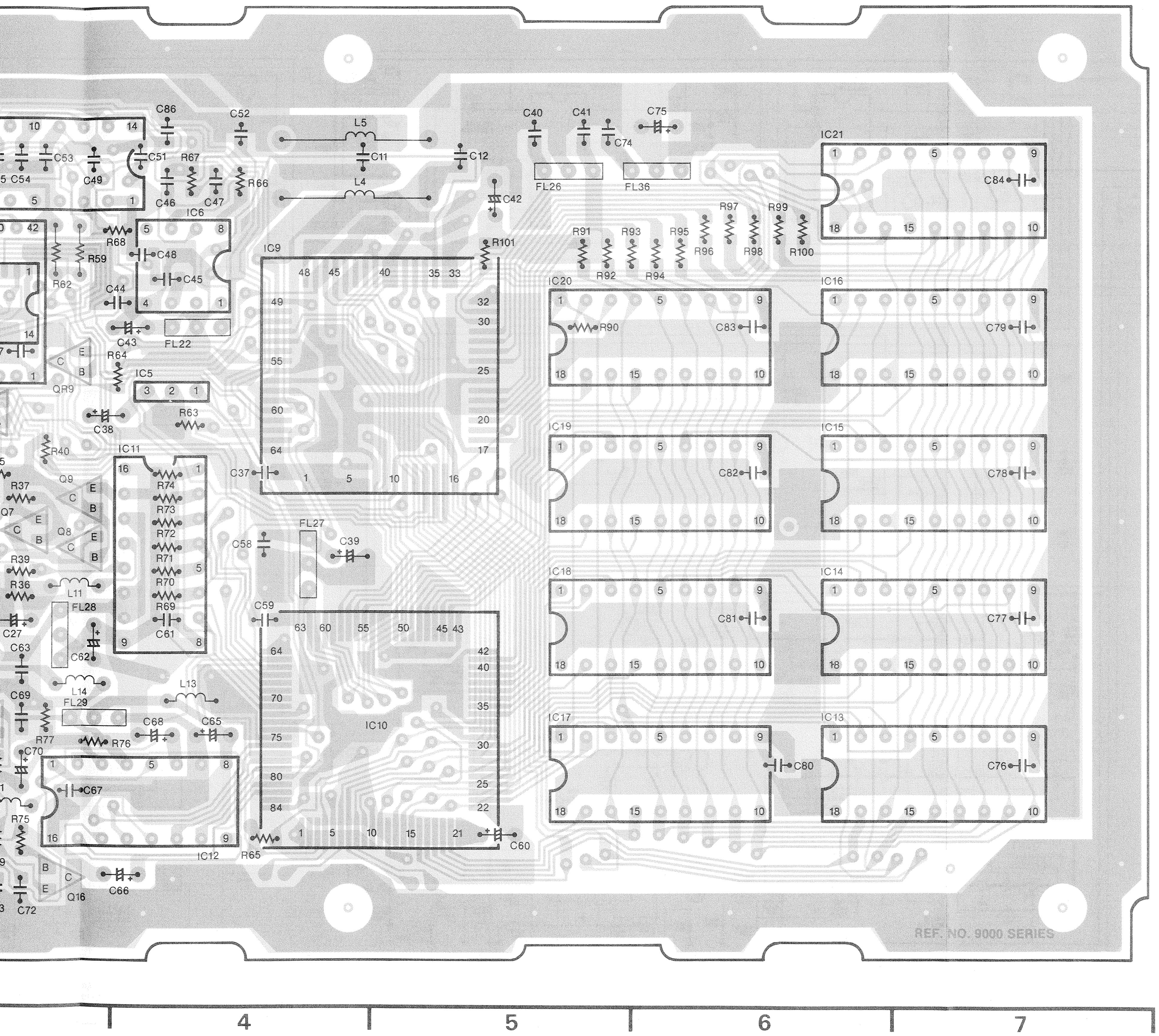
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS STOP MODE IN OSD CONDITION.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS STROBE PLAYBACK MODE WITH NTSC COLOR SIGNAL (SP MODE).

2 3 4 5 6 7 8 9 10 11 12 13 14

DIGITAL C.B.A. (VEP03396C)


D
C
B
A
1
2
3
4
5
6
7
P9001
P9006
P9003
P9002
P9005
P9004
DIGITAL CONTROL FREQ. ADJ.
COLOR PHASE ON SMALL PICTURE ADJ.
VR1
TP1
X1
J1
IC1
IC2
IC3
IC4
IC5
IC6
IC7
IC8
IC9
IC10
IC11
IC12
IC13
IC14
IC15
IC16
IC17
IC18
IC19
IC20
IC21
REF. NO. 9000 SERIES


C86
C52
L5
C11
C12
L4
C40
C41
C75
C74
C42
FL26
FL36
IC21
C84
C53
C51
R67
R66
C54
C49
C46
C47
IC6
R68
C48
C45
R59
R62
C44
C43
FL22
R64
IC5
QR9
C38
R63
R40
IC11
R74
R73
R72
R71
R70
R69
C61
R37
Q9
Q7
Q8
R39
R36
L11
FL28
C27
C63
C62
C69
L14
FL29
L13
C68
C65
R77
R76
C70
C67
R75
IC12
R65
Q16
C66
C72
IC9
R101
R91
R93
R95
R97
R99
R96
R98
R100
R92
R94
IC20
R90
C83
IC16
C79
IC19
C82
IC15
C78
C37
FL27
C58
C39
IC18
C81
IC14
C77
C59
IC10
IC17
C80
IC13
C76
C60
REF. NO. 9000 SERIES
4
5
6
7

DIGITAL C.B.A.

Transistor	
Q9001	B-2
Q9002	A-2
Q9003	A-2
Q9004	B-2
Q9005	A-2
Q9006	B-3
Q9007	B-3
Q9008	B-3
Q9009	C-3
Q9010	B-3
Q9011	C-2
Q9012	C-2
Q9013	C-3
Q9014	C-2
Q9015	C-3
Q9016	A-3
Q9017	B-3
Q9018	A-3

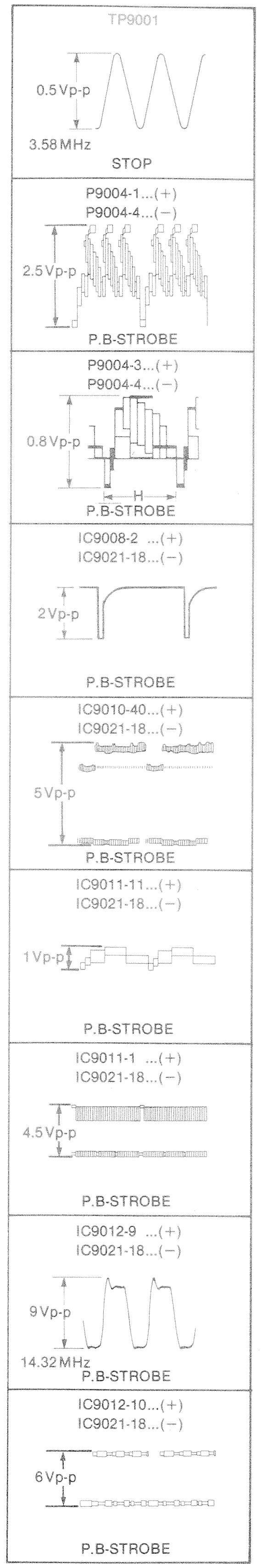
Transistor & Resistor	
QR9001	B-2
QR9002	B-2
QR9003	B-2
QR9004	C-2
QR9005	C-2
QR9006	C-2
QR9007	D-2
QR9008	D-2
QR9009	C-3
QR9010	B-2

Integrated Circuit	
IC9001	B-2
IC9002	C-2
IC9003	D-3
IC9004	C-2
IC9005	C-4
IC9006	D-4
IC9007	D-3
IC9008	C-3
IC9009	C-4
IC9010	B-5
IC9011	C-4
IC9012	A-4
IC9013	B-6
IC9014	B-6
IC9015	C-6
IC9016	C-6
IC9017	B-5
IC9018	B-5
IC9019	C-5
IC9020	C-5
IC9021	D-6

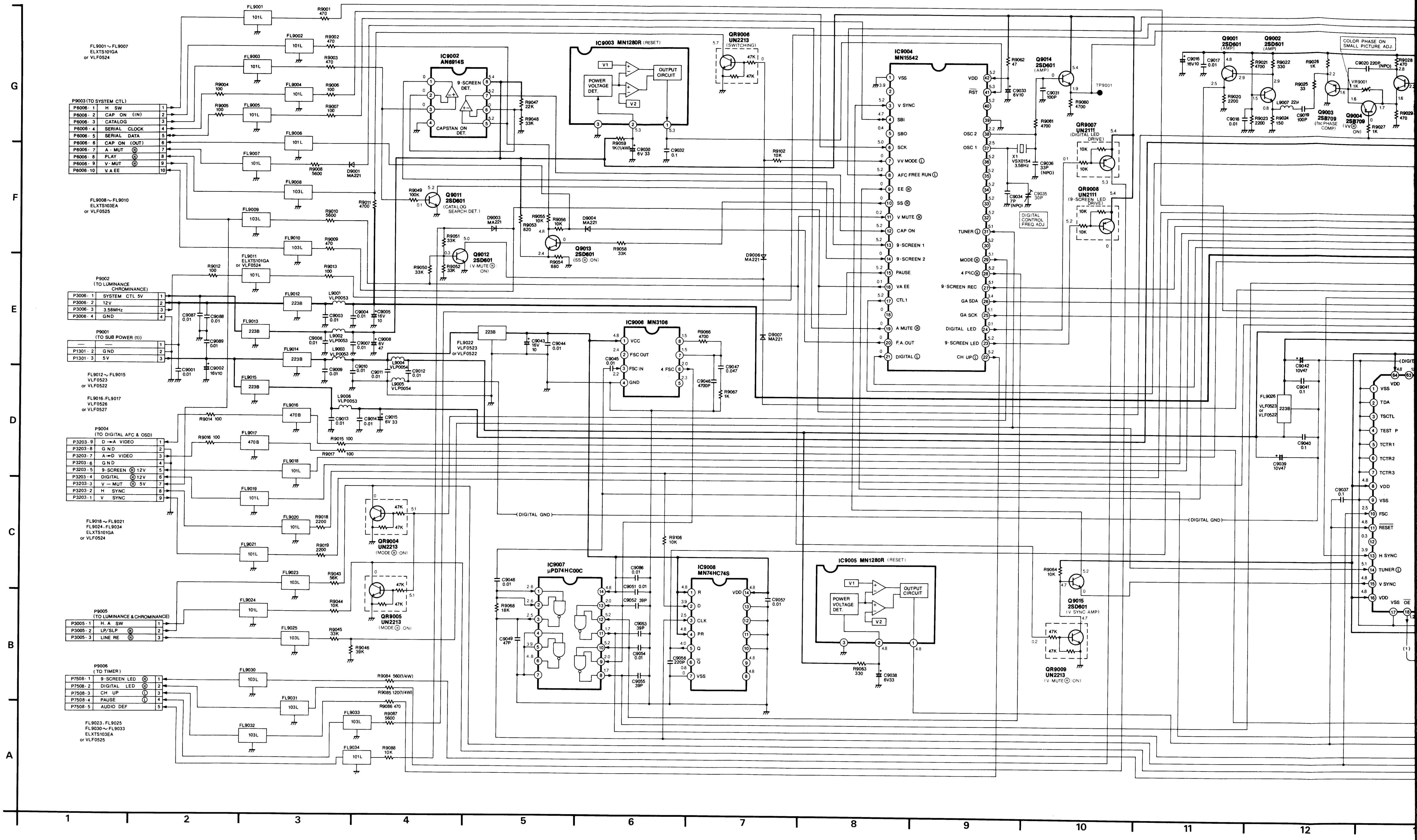
Test Point	
TP9001	B-2

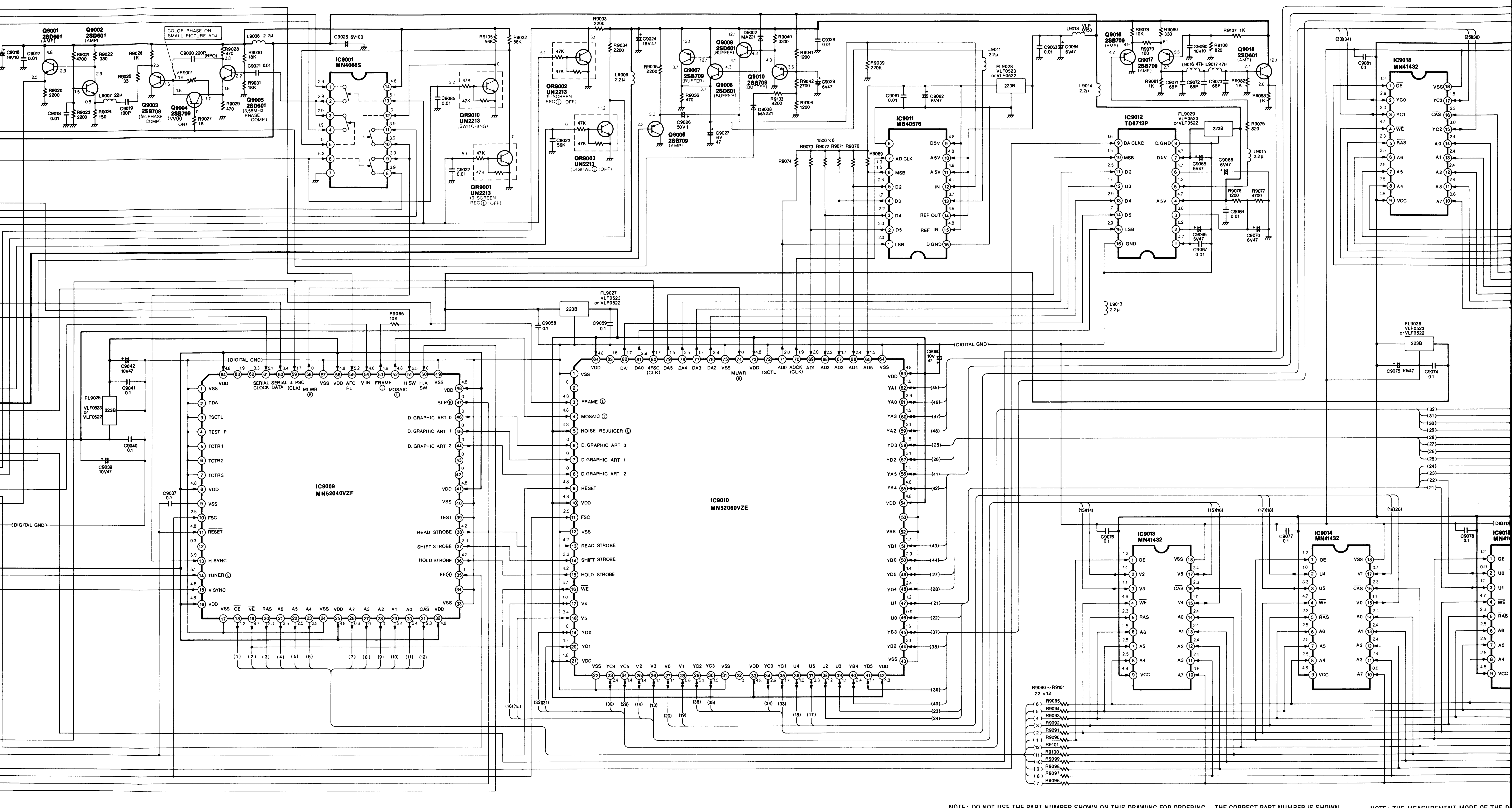
Adjustment	
VR9001	B-2
C9035	D-2

ADDRESS INFORMATION



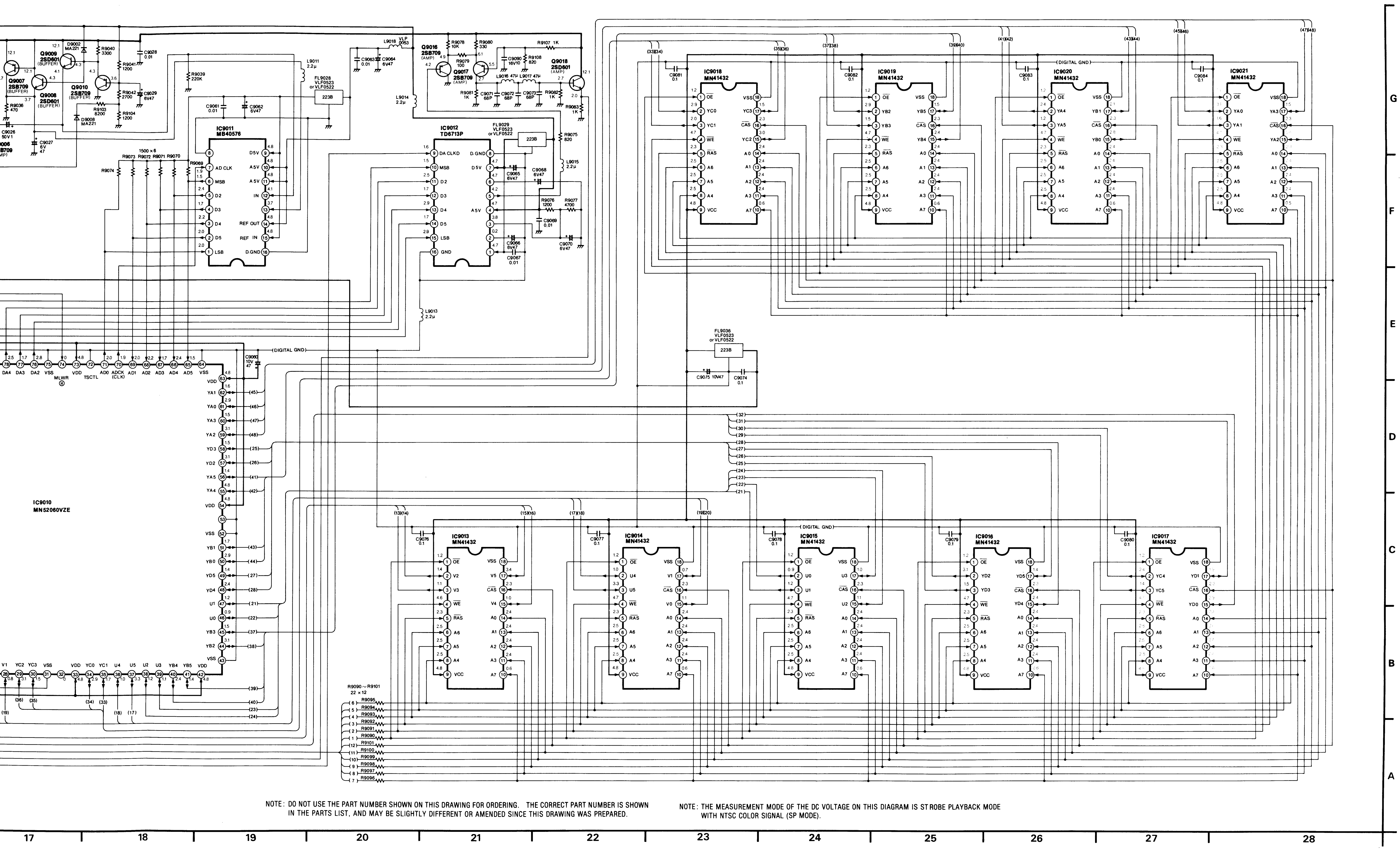
DIGITAL SCHEMATIC DIAGRAM


FL9001～FL9007 ELXTS101GA or VLF0524
P9003 (TO SYSTEM CTL)
P6006·1 H SW
P6006·2 CAP ON (IN)
P6006·3 CATALOG
P6006·4 SERIAL CLOCK
P6006·5 SERIAL DATA
P6006·6 CAP ON (OUT)
P6006·7 A·MUT Ⓗ
P6006·8 PLAY Ⓛ
P6006·9 V·MUT Ⓗ
P6006·10 V.A EE
FL9008～FL9010 ELXTS103EA or VLF0525
P9002 (TO LUMINANCE CHROMINANCE)
P3006·1 SYSTEM CTL 5V
P3006·2 12V
P3006·3 3.58MHz
P3006·4 GND
P9001 (TO SUB POWER (1))
P1301·2 GND
P1301·3 5V
FL9012～FL9015 VLF0523 or VLF0522
FL9016·FL9017 VLF0526 or VLF0527
P9004 (TO DIGITAL AFC & OSD)
P3203·9 D→A VIDEO
P3203·8 GND
P3203·7 A→D VIDEO
P3203·6 GND
P3203·5 9·SCREEN Ⓗ 12V
P3203·4 DIGITAL Ⓗ 12V
P3203·3 V—MUT Ⓗ 5V
P3203·2 H SYNC
P3203·1 V SYNC
FL9018～FL9021 FL9024·FL9034 ELXTS101GA or VLF0524
P9005 (TO LUMINANCE & CHROMINANCE)
P3005·1 H.A SW
P3005·2 LP/SLP Ⓗ
P3005·3 LINE RE Ⓗ
P9006 (TO TIMER)
P7508·1 9·SCREEN LED Ⓗ
P7508·2 DIGITAL LED Ⓗ
P7508·3 CH UP Ⓛ
P7508·4 PAUSE Ⓛ
P7508·5 AUDIO DEF
FL9023·FL9025 FL9030～FL9033 ELXTS103EA or VLF0525
IC9002 AN6914S
9·SCREEN DET.
CAPSTAN ON DET.
IC9003 MN1280R (RESET)
POWER VOLTAGE DET.
OUTPUT CIRCUIT
QR9006 UN2213 (SWITCHING)
Q9011 2SD601 (CATALOG SEARCH DET.)
Q9012 2SD601 (V·MUTE Ⓗ ON)
Q9013 2SD601 (SS Ⓗ ON)
IC9004 MN15542
VSS
V SYNC
SBI
SBO
SCK
VV MODE Ⓛ
AFC FREE RUN Ⓛ
EE Ⓗ
SS Ⓗ
V MUTE Ⓗ
CAP ON
9·SCREEN 1
9·SCREEN 2
PAUSE
VA EE
CTL1
A MUTE Ⓗ
F.A.OUT
DIGITAL Ⓛ
VDD
RST
OSC 2
OSC 1
TUNER Ⓛ
MODE Ⓗ
4 FSC Ⓗ
9·SCREEN REC
GA SDA
GA SCK
DIGITAL LED
9·SCREEN LED
CH UP Ⓛ
X1 VSX0154 3.58Hz
DIGITAL CONTROL FREQ.ADJ
Q9014 2SD601 (AMP)
TP9001
QR9007 UN2111 (DIGITAL LED DRIVE)
QR9008 UN2111 (9·SCREEN LED DRIVE)
IC9006 MN3106
VCC
FSC OUT
FSC IN
GND
4 FSC
(DIGITAL GND)
QR9004 UN2213 (MODE Ⓗ ON)
QR9005 UN2213 (MODE Ⓗ ON)
IC9007 μPD74HC00C
IC9008 MN74HC74S
R D CLK PR Q Q̄ VSS VDD
IC9005 MN1280R (RESET)
Q9015 2SD601 (V SYNC AMP)
QR9009 UN2213 (V·MUTE Ⓗ ON)
Q9001 2SD601 (AMP)
Q9002 2SD601 (AMP)
Q9003 2SB709 (fsc PHASE COMP)
Q9004 2SB709 (VV Ⓗ ON)
COLOR PHASE ON SMALL PICTURE ADJ
VR9001 1K
FL9026 VLF0523 or VLF0522
VSS TDA TSCTL TEST P TCTR1 TCTR2 TCTR3 VDD VSS FSC RESET H SYNC TUNER Ⓛ V SYNC VDD VSS OE
G F E D C B A
1 2 3 4 5 6 7 8 9 10 11 12


Q9001 2SD601 (AMP)
Q9002 2SD601 (AMP)
COLOR PHASE ON SMALL PICTURE ADJ.
VR9001 1K
Q9003 2SB709 (fsc PHASE COMP)
Q9004 2SB709 (VV(H) ON)
Q9005 2SD601 (3.58MHz PHASE COMP)
L9008 2.2μ
IC9001 MN4066S
C9025 6V100
QR9010 UN2213 (SWITCHING)
QR9001 UN2213 (9-SCREEN REC(L) OFF)
QR9002 UN2213 (9-SCREEN REC(L) OFF)
QR9003 UN2213 (DIGITAL(L) OFF)
Q9006 2SB709 (AMP)
Q9007 2SB709 (BUFFER)
Q9008 2SD601 (BUFFER)
Q9009 2SD601 (BUFFER)
Q9010 2SB709 (BUFFER)
D9002 MA221
D9008 MA221
FL9028 VLF0523 or VLF0522
IC9011 MB40576
Q9016 2SB709 (AMP)
Q9017 2SB709 (AMP)
Q9018 2SD601 (AMP)
IC9012 TD6713P
FL9029 VLF0523 or VLF0522
IC9018 MN41432
FL9026 VLF0523 or VLF0522
(DIGITAL GND)
IC9009 MN52040VZF
FL9027 VLF0523 or VLF0522
IC9010 MN52060VZE
FL9036 VLF0523 or VLF0522
IC9013 MN41432
IC9014 MN41432
IC9015 MN41
R9090 ~ R9101 22 × 12
11
12
13
14
15
16
17
18
19
20
21
22
23
2

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE: THE MEASUREMENT MODE OF THE D WITH NTSC COLOR SIGNAL (SP MODE


Q9007
2SB709
(BUFFER)
Q9009
2SD601
(BUFFER)
Q9008
2SD601
(BUFFER)
Q9010
2SB709
(BUFFER)
D9002
MA221
D9008
MA221
R9036
470
C9026
50V1
C9027
6V
47
R9040
3300
R9041
1200
R9042
2700
R9103
8200
R9104
1200
C9028
0.01
C9029
6V47
R9039
220K
L9011
2.2μ
FL9028
VLF0523
or VLF0522
223B
C9061
0.01
C9062
6V47
IC9011
MB40576
1500 x 6
R9073 R9072 R9071 R9070
R9069
R9074
AD CLK
MSB
D2
D3
D4
D5
LSB
D5V
A5V
IN
REF OUT
REF IN
D.GND
L9018
VLP
0053
C9063
0.01
C9064
6V47
L9014
2.2μ
Q9016
2SB709
(AMP)
R9078
10K
R9079
100
Q9017
2SB709
(AMP)
R9080
330
C9090
16V10
R9108
820
R9107 1K
L9016 47μ
L9017 47μ
Q9018
2SD601
(AMP)
R9081
1K
C9071
68P
C9072
68P
C9073
68P
R9082
1K
R9083
1K
IC9012
TD6713P
FL9029
VLF0523
or VLF0522
223B
R9075
820
DA CLKD
MSB
D2
D3
D4
D5
LSB
GND
D.GND
D5V
A5V
C9065
6V47
C9068
6V47
L9015
2.2μ
R9076
1200
R9077
4700
C9069
0.01
C9066
6V47
C9067
0.01
C9070
6V47
L9013
2.2μ
IC9018
MN41432
IC9019
MN41432
IC9020
MN41432
IC9021
MN41432
C9081
0.1
C9082
0.1
C9083
0.1
C9084
0.1
(DIGITAL GND)
OE
WE
RAS
CAS
VSS
VCC
A0 A1 A2 A3 A4 A5 A6 A7
YC0 YC1 YC2 YC3
YB2 YB3 YB4 YB5
YA4 YA5 YB0 YB1
YA0 YA1 YA2 YA3
(33)(34) (35)(36) (37)(38) (39)(40) (41)(42) (43)(44) (45)(46) (47)(48)
FL9036
VLF0523
or VLF0522
223B
C9075 10V47
C9074
0.1
C9080
10V
47
(DIGITAL GND)
DA4 DA3 DA2 VSS TSCTL ADCK AD0 AD1 AD2 AD3 AD4 AD5 VSS
MLWR
VDD
(CLK)
IC9010
MN52060VZE
VDD YA1 YA0 YA3 YA2 YD3 YD2 YA5 YA4 VDD VSS YB1 YB0 YD5 YD4 U1 U0 YB3 YB2 VSS
V1 YC2 YC3 VSS VDD YC0 YC1 U4 U5 U2 U3 YB4 YB5 VDD
IC9013
MN41432
IC9014
MN41432
IC9015
MN41432
IC9016
MN41432
IC9017
MN41432
C9076
0.1
C9077
0.1
C9078
0.1
C9079
0.1
C9080
0.1
V2 V3 V4 V5
U4 U5 V0 V1
U0 U1 U2 U3
YD2 YD3 YD4 YD5
YC4 YC5 YD0 YD1
(13)(14) (15)(16) (17)(18) (19)(20)
R9090 ~ R9101
22 x 12
R9095 R9094 R9093 R9092 R9091 R9090 R9101 R9100 R9099 R9098 R9097 R9096
A B C D E F G
17 18 19 20 21 22 23 24 25 26 27 28

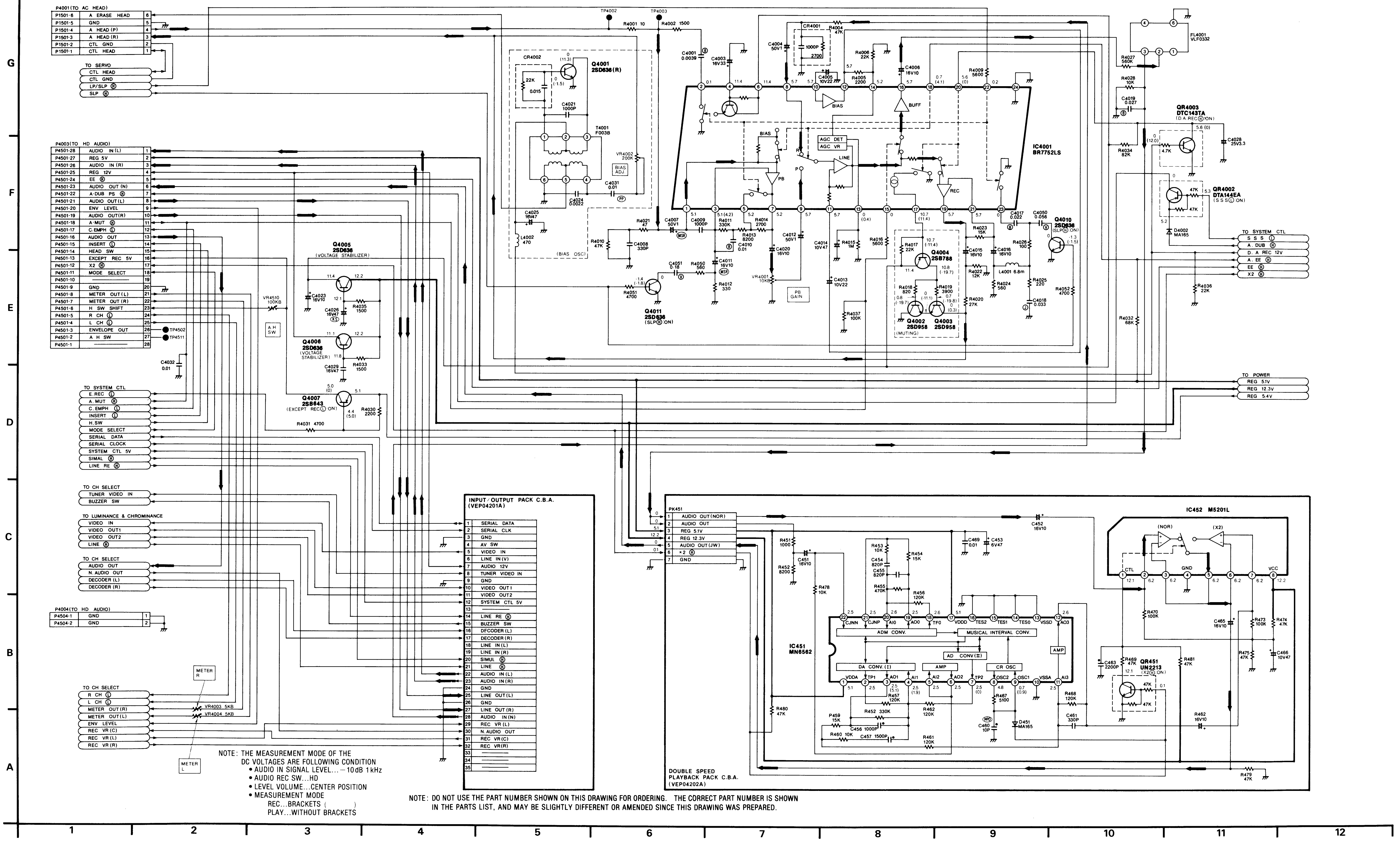
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STROBE PLAYBACK MODE WITH NTSC COLOR SIGNAL (SP MODE).

AUDIO Section & DOUBLE SPEED PLAYBACK PACK SCHEMATIC DIAGRAM

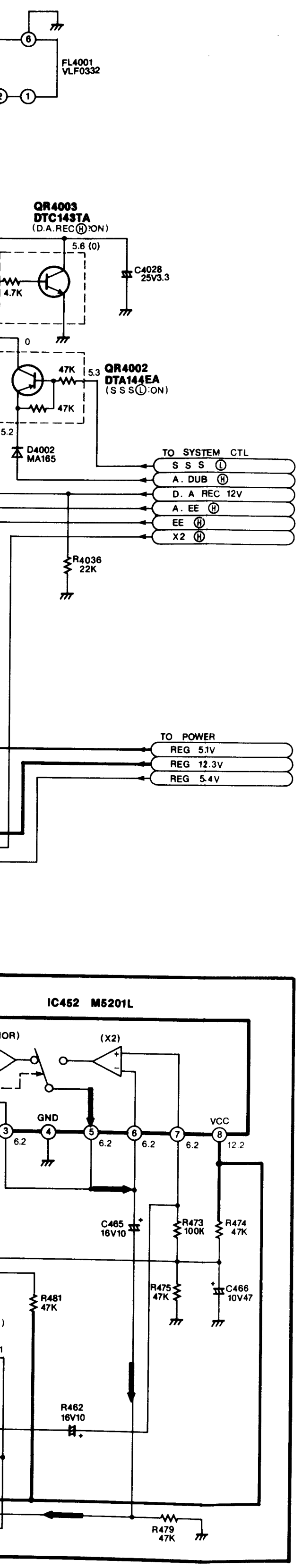
MAIN SIGNAL PATH IN REC MODE

MAIN SIGNAL PATH IN PLAYBACK MODE

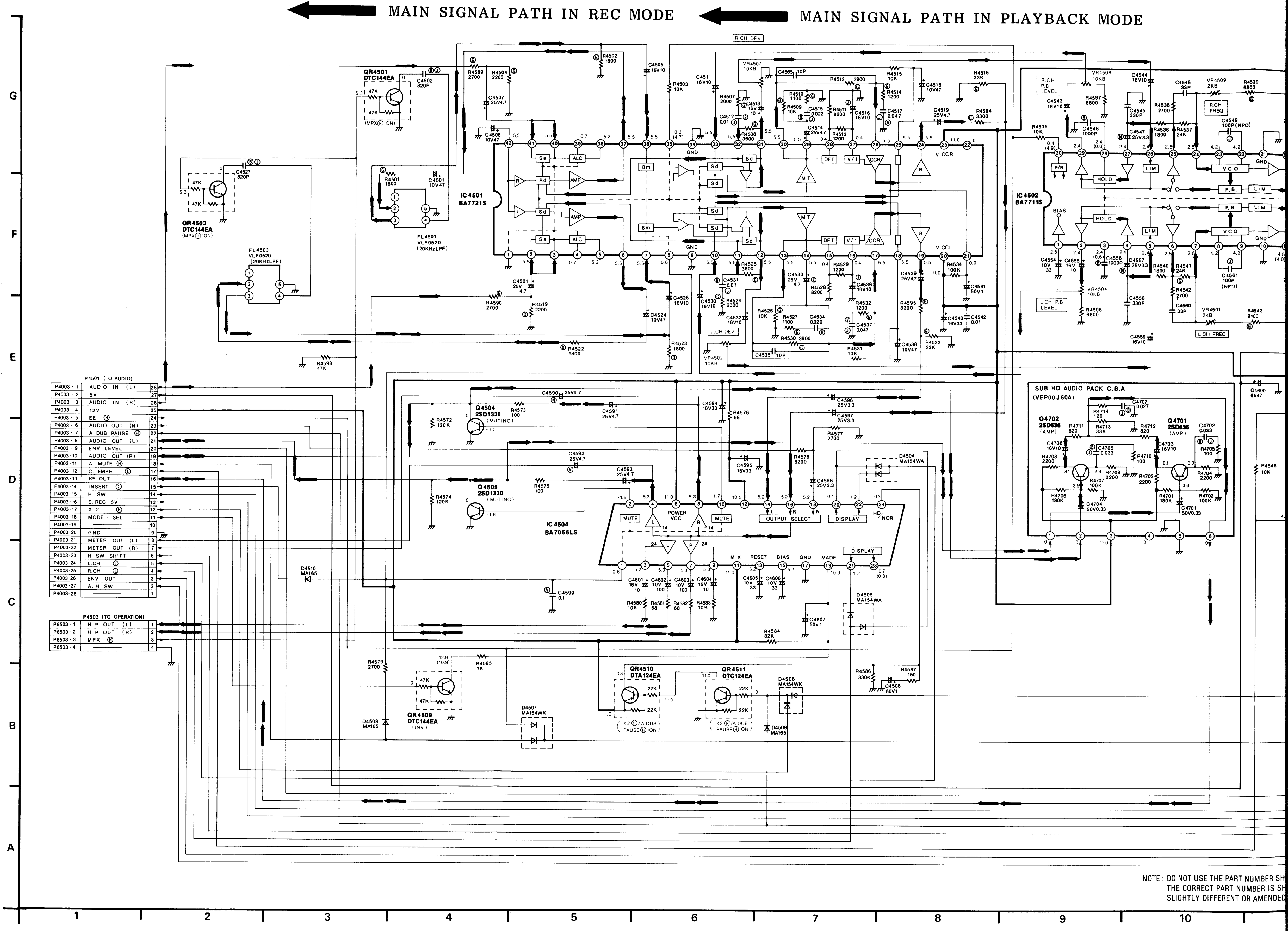

P4001(TO AC HEAD)
P1501-6 A ERASE HEAD 6
P1501-5 GND 5
P1501-4 A HEAD (P) 4
P1501-3 A HEAD (R) 3
P1501-2 CTL GND 2
P1501-1 CTL HEAD 1
TO SERVO
CTL HEAD
CTL GND
LP/SLP Ⓗ
SLP Ⓗ
P4003(TO HD AUDIO)
P4501-28 AUDIO IN (L) 1
P4501-27 REG 5V 2
P4501-26 AUDIO IN (R) 3
P4501-25 REG 12V 4
P4501-24 EE Ⓗ 5
P4501-23 AUDIO OUT (N) 6
P4501-22 A-DUB PS Ⓗ 7
P4501-21 AUDIO OUT (L) 8
P4501-20 ENV LEVEL 9
P4501-19 AUDIO OUT(R) 10
P4501-18 A-MUT Ⓗ 11
P4501-17 C.EMPH Ⓛ 12
P4501-16 AUDIO OUT 13
P4501-15 INSERT Ⓛ 14
P4501-14 HEAD SW 15
P4501-13 EXCEPT REC 5V 16
P4501-12 X2 Ⓗ 17
P4501-11 MODE SELECT 18
P4501-10 19
P4501-9 GND 20
P4501-8 METER OUT (L) 21
P4501-7 METER OUT (R) 22
P4501-6 H SW SHIFT 23
P4501-5 R CH Ⓛ 24
P4501-4 L CH Ⓛ 25
P4501-3 ENVELOPE OUT 26
P4501-2 A H SW 27
P4501-1 28
TP4502
TP4511
C4032 0.01
TO SYSTEM CTL
E.REC Ⓛ
A.MUT Ⓗ
C.EMPH Ⓛ
INSERT Ⓛ
H.SW
MODE SELECT
SERIAL DATA
SERIAL CLOCK
SYSTEM CTL 5V
SIMAL Ⓗ
LINE RE Ⓗ
TO CH SELECT
TUNER VIDEO IN
BUZZER SW
TO LUMINANCE & CHROMINANCE
VIDEO IN
VIDEO OUT1
VIDEO OUT2
LINE Ⓗ
TO CH SELECT
AUDIO OUT
N.AUDIO OUT
DECODER (L)
DECODER (R)
P4004(TO HD AUDIO)
P4504-1 GND 1
P4504-2 GND 2
TO CH SELECT
R CH Ⓛ
L CH Ⓛ
METER OUT(R)
METER OUT(L)
ENV LEVEL
REC VR (C)
REC VR (L)
REC VR (R)
METER R
METER L
VR4003 5KB
VR4004 5KB
VR4510 100KB
A H SW
Q4005 2SD636 (VOLTAGE STABILIZER)
C4023 16V10
C4026 16V47
R4035 1500
Q4006 2SD636 (VOLTAGE STABILIZER)
C4029 16V47
R4033 1500
Q4007 2SB643 (EXCEPT REC Ⓛ ON)
R4030 2200
R4031 4700
INPUT/OUTPUT PACK C.B.A. (VEP04201A)
1 SERIAL DATA
2 SERIAL CLK
3 GND
4 AV SW
5 VIDEO IN
6 LINE IN (V)
7 AUDIO 12V
8 TUNER VIDEO IN
9 GND
10 VIDEO OUT1
11 VIDEO OUT2
12 SYSTEM CTL 5V
13
14 LINE RE Ⓗ
15 BUZZER SW
16 DFCODER (L)
17 DECODER (R)
18 LINE IN (L)
19 LINE IN (R)
20 SIMUL Ⓗ
21 LINE Ⓗ
22 AUDIO IN (L)
23 AUDIO IN (R)
24 GND
25 LINE OUT (L)
26 GND
27 LINE OUT (R)
28 AUDIO IN (N)
29 REC VR (L)
30 N.AUDIO OUT
31 REC VR (C)
32 REC VR (R)
33
34
35
CR4002
Q4001 2SD636 (R)
C4021 1000P
T4001 F003B
VR4002 200K
BIAS ADJ
C4031 0.01
C4024 0.0022
C4025 16V47
L4002 470
(BIAS OSC)
TP4002
TP4003
R4001 10
R4002 1500
C4001 0.0039
C4003 16V33
C4004 50V1
CR4001
R4004 47K
C4005 10V22
R4006 22K
R4005 2200
C4006 16V10
R4009 5600
IC4001 BR7752LS
BIAS
AGC DET
AGC VR
LINE
PB
REC
BUFF
R4021 47
C4007 50V1
C4009 1000P
R4011 330K
R4013 8200
R4014 2700
C4010 0.01
C4011 16V10
R4010 47K
C4008 330P
C4051 0.18
R4050 560
R4012 330
R4051 4700
Q4011 2SD636 (SLP Ⓗ ON)
VR4001 10KB
C4020 16V10
C4012 50V1
PB GAIN
C4014 10V47
R4015 1M
C4013 10V22
R4037 100K
R4016 5600
R4017 22K
Q4004 2SB788
R4018 820
R4019 3900
Q4002 2SD958
Q4003 2SD958
(MUTING)
R4023 15K
C4015 16V10
C4016 16V10
R4026 100
R4022 12K
L4001 6.8m
R4024 560
R4025 220
R4020 27K
C4018 0.033
C4017 0.022
C4050 0.056
Q4010 2SD636 (SLP Ⓗ ON)
R4052 4700
FL4001 VLF0332
R4027 560K
R4028 10K
C4019 0.027
QR4003 DTC143TA (D.A.REC Ⓗ ON)
C4028 25V3.3
R4034 82K
QR4002 DTA144EA (S S S Ⓛ ON)
D4002 MA165
R4032 68K
R4036 22K
TO SYSTEM CTL
S S S Ⓛ
A.DUB Ⓗ
D.A REC 12V
A.EE Ⓗ
EE Ⓗ
X2 Ⓗ
TO POWER
REG 5.1V
REG 12.3V
REG 5.4V
PK451
1 AUDIO OUT(NOR)
2 AUDIO OUT
3 REG 5.1V
4 REG 12.3V
5 AUDIO OUT(JW)
6 ×2 Ⓗ
7 GND
C452 16V10
R451 1000
C451 16V10
R452 8200
R478 10K
R453 10K
R454 15K
C454 820P
C455 820P
R455 470K
R456 120K
C469 0.01
C453 6V47
IC451 MN6562
CJNN
CJNP
AIO
AOO
TFO
VDDD
TES2
TES1
TESO
VSSD
AO3
ADM CONV.
MUSICAL INTERVAL CONV.
AD CONV (II)
AMP
DA CONV.(I)
CR OSC
VDDA
TP1
AO1
AI1
AI2
AO2
TP2
OSC2
OSC1
VSSA
AI3
R457 120K
R462 120K
R467 5100
C460 10P
D451 MA165
R468 120K
C461 330P
P459 15K
R452 330K
R460 10K
C456 1000P
C457 1500P
R461 120K
R480 47K
IC452 M5201L
(NOR)
(X2)
CTL
GND
VCC
R470 100K
C463 2200P
R469 47K
QR451 UN2213 (X2 Ⓗ ON)
R481 47K
C465 16V10
R473 100K
R474 47K
R475 47K
C466 10V47
R462 16V10
R479 47K
DOUBLE SPEED PLAYBACK PACK C.B.A. (VEP04202A)
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12

NOTE: THE MEASUREMENT MODE OF THE
DC VOLTAGES ARE FOLLOWING CONDITION
- AUDIO IN SIGNAL LEVEL... −10dB 1kHz
- AUDIO REC SW...HD
- LEVEL VOLUME...CENTER POSITION
- MEASUREMENT MODE
  REC...BRACKETS (   )
  PLAY...WITHOUT BRACKETS

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.


FL4001
VLF0332
QR4003
DTC143TA
(D.A.REC Ⓗ ON)
C4028
25V3.3
QR4002
DTA144EA
(S S S Ⓛ ON)
D4002
MA165
TO SYSTEM CTL
S S S Ⓛ
A. DUB Ⓗ
D. A REC 12V
A. EE Ⓗ
EE Ⓗ
X2 Ⓗ
R4036
22K
TO POWER
REG 5.1V
REG 12.3V
REG 5.4V
IC452 M5201L
(X2)
GND
VCC
C465
16V10
R473
100K
R474
47K
R481
47K
R475
47K
C466
10V47
R462
16V10
R479
47K

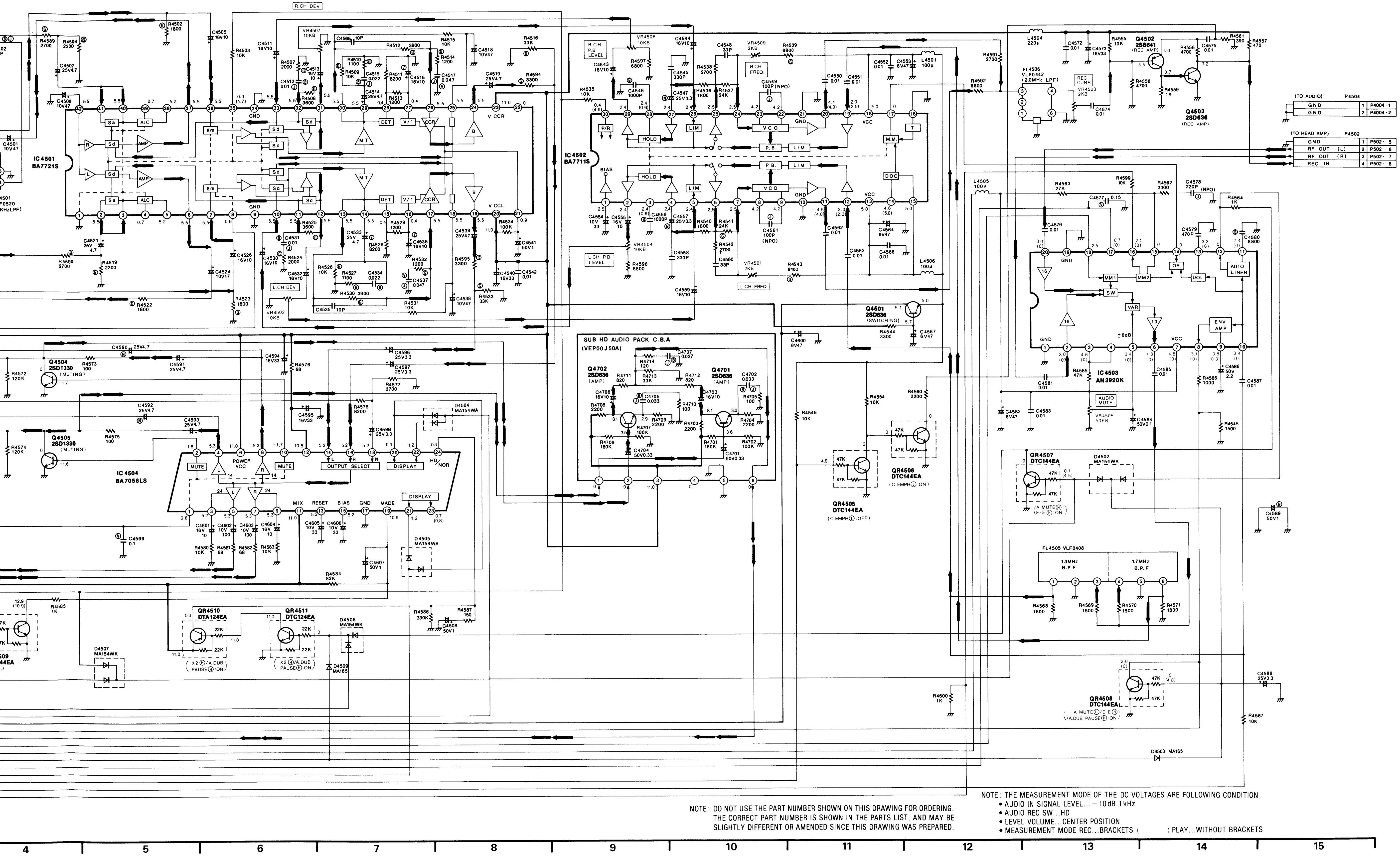
HD AUDIO & SUB HD AUDIO PACK SCHEMATIC DIAGRAM


MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
G
F
E
D
C
B
A
QR4501
DTC144EA
(MPX Ⓗ ON)
QR4503
DTC144EA
(MPX Ⓗ ON)
FL4503
VLF0520
(20KHzLPF)
FL4501
VLF0520
(20KHzLPF)
IC4501
BA7721S
IC4502
BA7711S
R.CH DEV
L.CH DEV
VR4507
10KB
VR4502
10KB
VR4508
10KB
VR4504
10KB
VR4509
2KB
VR4501
2KB
R.CH P.B LEVEL
L.CH P.B LEVEL
R.CH FREQ.
L.CH FREQ
V CCR
V CCL
GND
BIAS
ALC
AMP
DET
V/1
CCR
HOLD
LIM
VCO
P.B.
P4501 (TO AUDIO)
P4003 · 1 AUDIO IN (L) 28
P4003 · 2 5V 27
P4003 · 3 AUDIO IN (R) 26
P4003 · 4 12V 25
P4003 · 5 EE Ⓗ 24
P4003 · 6 AUDIO OUT (N) 23
P4003 · 7 A. DUB PAUSE Ⓗ 22
P4003 · 8 AUDIO OUT (L) 21
P4003 · 9 ENV LEVEL 20
P4003 · 10 AUDIO OUT (R) 19
P4003 · 11 A. MUTE Ⓗ 18
P4003 · 12 C. EMPH Ⓛ 17
P4003 · 13 RF OUT 16
P4003 · 14 INSERT Ⓛ 15
P4003 · 15 H. SW 14
P4003 · 16 E. REC 5V 13
P4003 · 17 X 2 Ⓗ 12
P4003 · 18 MODE SEL 11
P4003 · 19 — 10
P4003 · 20 GND 9
P4003 · 21 METER OUT (L) 8
P4003 · 22 METER OUT (R) 7
P4003 · 23 H. SW SHIFT 6
P4003 · 24 L.CH Ⓛ 5
P4003 · 25 R.CH Ⓛ 4
P4003 · 26 ENV OUT 3
P4003 · 27 A. H SW 2
P4003 · 28 — 1
P4503 (TO OPERATION)
P6503 · 1 H P OUT (L) 1
P6503 · 2 H P OUT (R) 2
P6503 · 3 MPX Ⓗ 3
P6503 · 4 — 4
Q4504
2SD1330
(MUTING)
Q4505
2SD1330
(MUTING)
IC4504
BA7056LS
POWER VCC
MUTE
OUTPUT SELECT
DISPLAY
HD/NOR
MIX
RESET
BIAS
GND
MADE
D4504
MA154WA
D4505
MA154WA
D4510
MA165
SUB HD AUDIO PACK C.B.A
(VEP00J50A)
Q4702
2SD636
(AMP)
Q4701
2SD636
(AMP)
QR4509
DTC144EA
(INV.)
D4508
MA165
D4507
MA154WK
QR4510
DTA124EA
QR4511
DTC124EA
(X2 Ⓗ/A.DUB PAUSE Ⓗ ON)
D4506
MA154WK
D4509
MA165
R4579
2700
R4585
1K
R4586
330K
R4587
150
C4508
50V1
R4584
82K
C4607
50V1
R4572
120K
R4574
120K
R4573
100
R4575
100
C4599
0.1
C4600
6V47
R4546
10K
R4598
47K
R4522
1800
R4523
1800
R4590
2700
R4519
2200
R4589
2700
R4504
2200
R4502
1800
R4503
10K
R4501
1800
C4501
10V47
C4502
820P
C4527
820P
C4505
16V10
C4506
10V47
C4507
25V4.7
C4511
16V10
1
2
3
4
5
6
7
8
9
10

NOTE: DO NOT USE THE PART NUMBER SH
THE CORRECT PART NUMBER IS SH
SLIGHTLY DIFFERENT OR AMENDED

CHEMATIC DIAGRAM

N SIGNAL PATH IN REC MODE ⟵ MAIN SIGNAL PATH IN PLAYBACK MODE


R.CH DEV
L.CH DEV
IC4501 BA7721S
IC4502 BA7711S
IC4503 AN3920K
IC4504 BA7056LS
Q4501 2SD636 (SWITCHING)
Q4502 2SB641 (REC AMP)
Q4503 2SD636 (REC AMP)
Q4504 2SD1330 (MUTING)
Q4505 2SD1330 (MUTING)
QR4505 DTC144EA (C.EMPH Ⓛ OFF)
QR4506 DTC144EA (C.EMPH Ⓛ ON)
QR4507 DTC144EA (A.MUTE Ⓗ (E·E Ⓗ) ON)
QR4508 DTC144EA (A.MUTE Ⓗ /E·E Ⓗ /A.DUB PAUSE Ⓗ ON)
QR4510 DTA124EA (X2 Ⓗ /A.DUB PAUSE Ⓗ ON)
QR4511 DTC124EA (X2 Ⓗ /A.DUB PAUSE Ⓗ ON)
D4502 MA154WK
D4503 MA165
D4504 MA154WA
D4505 MA154WA
D4506 MA154WK
D4507 MA154WK
D4509 MA165
SUB HD AUDIO PACK C.B.A (VEP00J50A)
Q4702 2SD636 (AMP)
Q4701 2SD636 (AMP)
FL4505 VLF0408
1.3MHz B.P.F
1.7MHz B.P.F
FL4506 VLF0442 (2.0MHz LPF)
R.CH PB LEVEL
L.CH PB LEVEL
R.CH FREQ
L.CH FREQ
REC CURR
AUDIO MUTE
VR4501 2KB
VR4502 10KB
VR4503 2KB
VR4504 10KB
VR4505 50KB
VR4507 10KB
VR4508 10KB
VR4509 2KB
(TO AUDIO) P4504
GND 1 P4004-1
GND 2 P4004-2
(TO HEAD AMP) P4502
GND 1 P502-5
RF OUT (L) 2 P502-6
RF OUT (R) 3 P502-7
REC IN 4 P502-8
OUTPUT SELECT
DISPLAY
MUTE
POWER VCC
MIX
RESET
BIAS
GND
MADE
HD/NOR
VCO
P.B.
LIM
HOLD
DOC
M.M.
ENV AMP
AUTO LINER
DOL
4
5
6
7
8
9
10
11
12
13
14
15

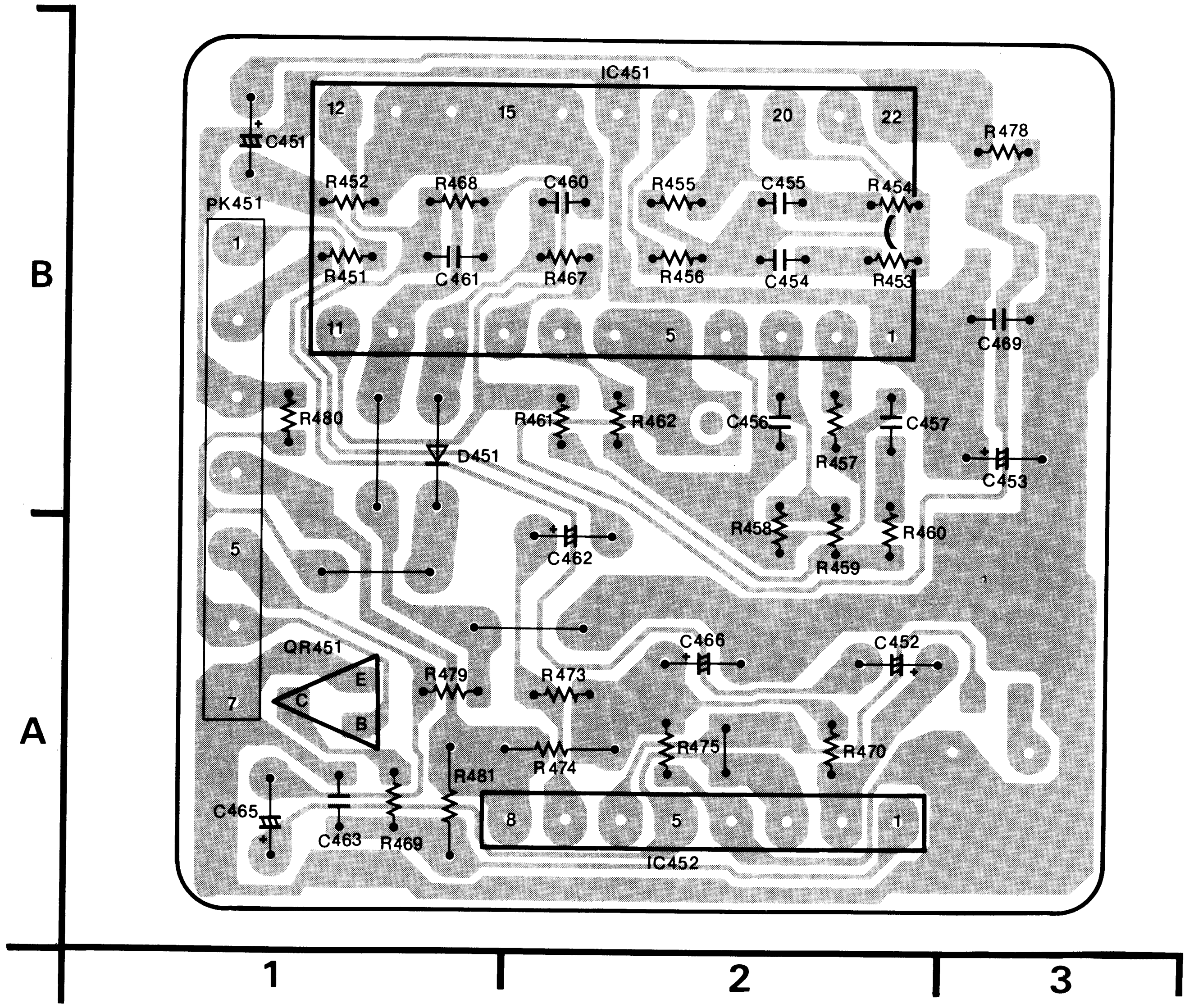
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE
SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGES ARE FOLLOWING CONDITION
- AUDIO IN SIGNAL LEVEL... −10dB 1kHz
- AUDIO REC SW...HD
- LEVEL VOLUME...CENTER POSITION
- MEASUREMENT MODE REC...BRACKETS ( ) PLAY...WITHOUT BRACKETS

DOUBLE SPEED PLAYBACK PACK C.B.A. (VEP04202A)

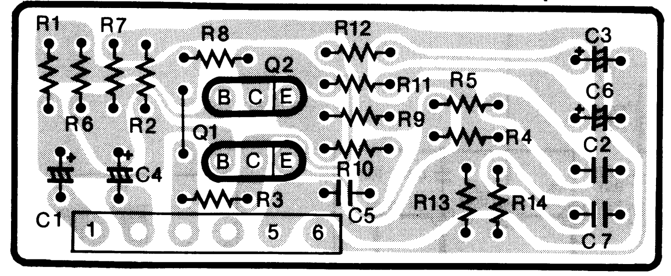
DOUBLE SPEED PLAYBACK PACK C.B.A.	
Transistor & Resistor	
QR451	A-1
Integrated Circuit	
IC451 IC452	B-2 A-2

ADDRESS INFORMATION


IC451
12
15
20
22
11
5
1
C451
PK451
R452
R468
C460
R455
C455
R454
R451
C461
R467
R456
C454
R453
R478
C469
R480
D451
R461
R462
C456
R457
C457
C453
C462
R458
R459
R460
QR451
E
C
B
R479
R473
C466
C452
R481
R474
R475
R470
C465
C463
R469
IC452
8
7
B
A
1
2
3

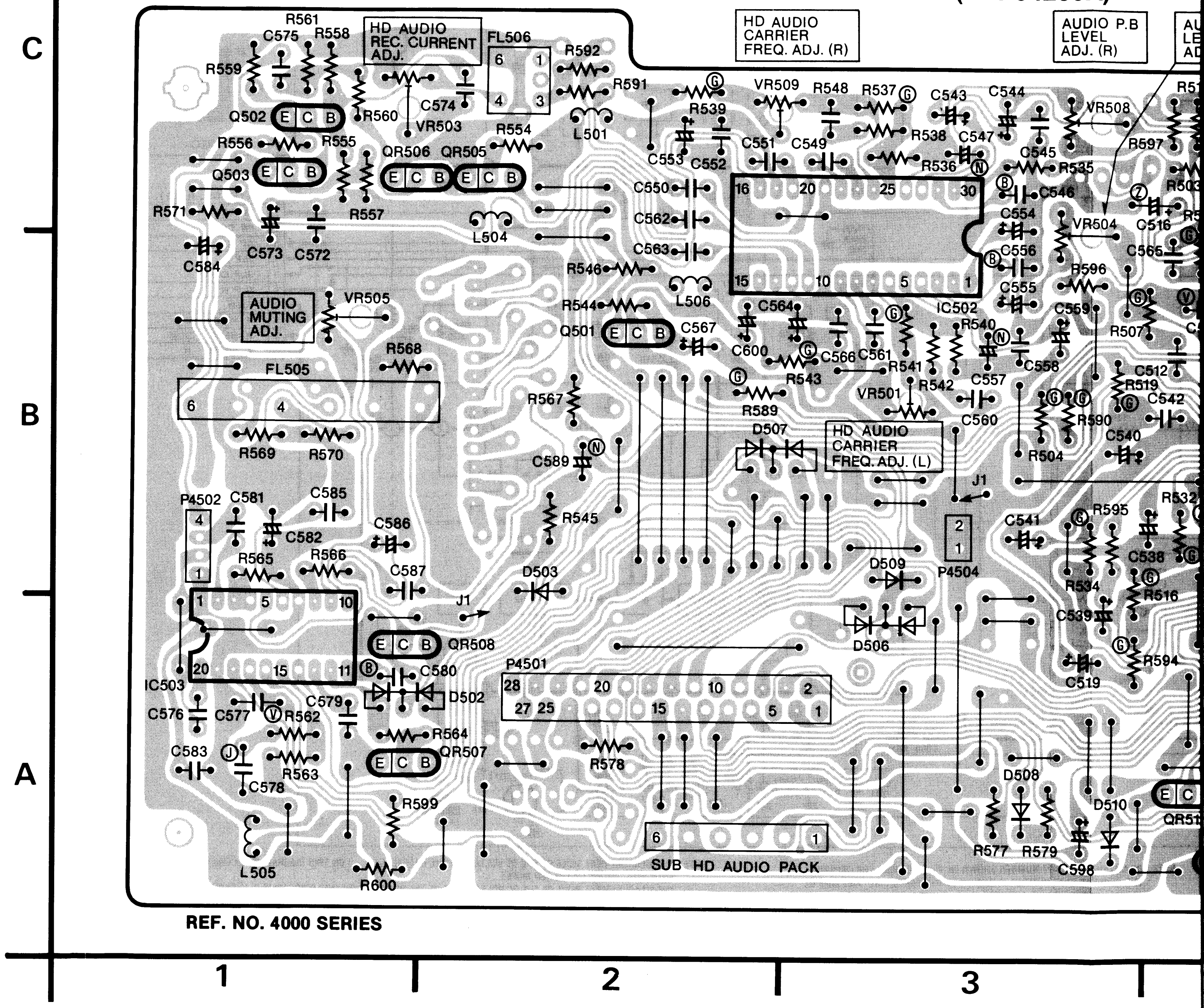
HD AUDIO C.B.A. (VEP04200A) & SUB HD AUDIO PACK C.B.A. (VEP00J50A)

SUB HD AUDIO PACK C.B.A. (VEP00J50A)


R1
R7
R8
R12
C3
R6
R2
Q2
B C E
R11
R5
C6
Q1
R9
R4
C2
B C E
R10
C4
R3
C5
R13
R14
C1
1
5
6
C7

REF. NO. 4700 SERIES

HD AUDIO C.B.A. (VEP04200A)


C
B
A
HD AUDIO REC. CURRENT ADJ.
HD AUDIO CARRIER FREQ. ADJ. (R)
AUDIO P.B LEVEL ADJ. (R)
AUDIO MUTING ADJ.
HD AUDIO CARRIER FREQ. ADJ. (L)
R561
C575
R558
FL506
R592
R559
R591
VR503
C574
VR509
R548
R537
C543
C544
VR508
Q502
R560
L501
R539
R538
C547
R597
R556
R555
QR506
QR505
R554
C553
C552
C551
C549
R536
C545
R535
Q503
R557
C550
IC502
C546
R571
C573
C572
L504
C562
C554
VR504
C516
C584
C563
C556
C565
R546
C555
R596
VR505
R544
L506
C564
C559
Q501
C567
R540
R507
R568
C600
C566
C561
R541
C558
C512
FL505
R543
R542
C557
R519
R567
R589
VR501
C560
C542
R590
D507
R504
C540
R569
R570
C589
J1
R545
R532
P4502
C581
C585
C541
R595
C582
C586
C538
R565
R566
D509
P4504
R534
C587
D503
R516
IC503
QR508
D506
C539
C580
R594
D502
P4501
C519
C576
C577
R562
C579
R564
QR507
C583
R563
R578
D508
C578
R599
D510
QR51
L505
R600
SUB HD AUDIO PACK
R577
R579
C598
1
2
3

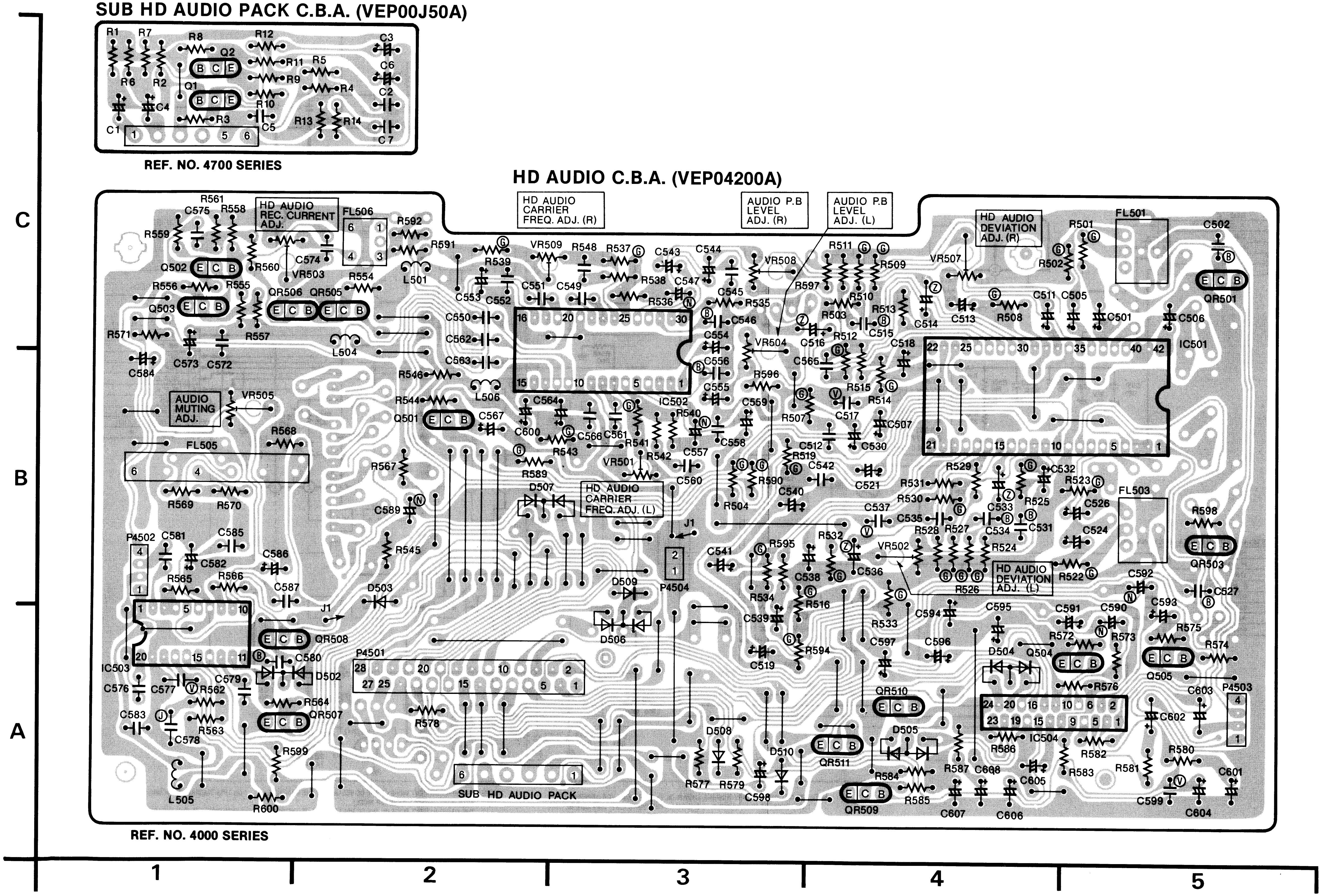
REF. NO. 4000 SERIES

PLAYBACK
sistor
A-1
t
B-2
A-2
MATION

HD AUDIO C.B.A. (VEP04200A) & SUB HD AUDIO PACK C.B.A. (VEP00J50A)

SUB HD AUDIO PACK C.B.A. (VEP00J50A)

HD AUDIO C.B.A. (VEP04200A)


REF. NO. 4700 SERIES
REF. NO. 4000 SERIES
HD AUDIO REC. CURRENT ADJ.
HD AUDIO CARRIER FREQ. ADJ. (R)
AUDIO P.B LEVEL ADJ. (R)
AUDIO P.B LEVEL ADJ. (L)
HD AUDIO DEVIATION ADJ. (R)
AUDIO MUTING ADJ.
HD AUDIO CARRIER FREQ. ADJ. (L)
HD AUDIO DEVIATION ADJ. (L)
SUB HD AUDIO PACK
IC501
IC502
IC503
IC504
Q501
Q502
Q503
Q504
Q505
QR501
QR503
QR505
QR506
QR507
QR508
QR509
QR510
QR511
VR501
VR502
VR503
VR504
VR505
VR507
VR508
VR509
FL501
FL503
FL505
FL506
P4501
P4502
P4503
P4504
J1
C
B
A
1
2
3
4
5

HD AUDIO & SUB HD AUDIO PACK C.B.A.	
Transistor	
Q4501	B-2
Q4502	C-1
Q4503	C-1
Q4504	A-4
Q4505	A-5
Q4701	C-1
Q4702	C-1
Transistor & Resistor	
QR4501	C-5
QR4503	B-5
QR4505	C-2
QR4506	C-1
QR4507	A-2
QR4508	A-2
QR4509	A-4
QR4510	A-4
QR4511	A-4
Integrated Circuit	
IC4501	C-5
IC4502	B-3
IC4503	A-1
IC4504	A-4
Adjustment	
VR4501	B-3
VR4502	B-4
VR4503	C-2
VR4504	C-3
VR4505	B-1
VR4507	C-4
VR4508	C-3
VR4509	C-2

ADDRESS INFORMATION

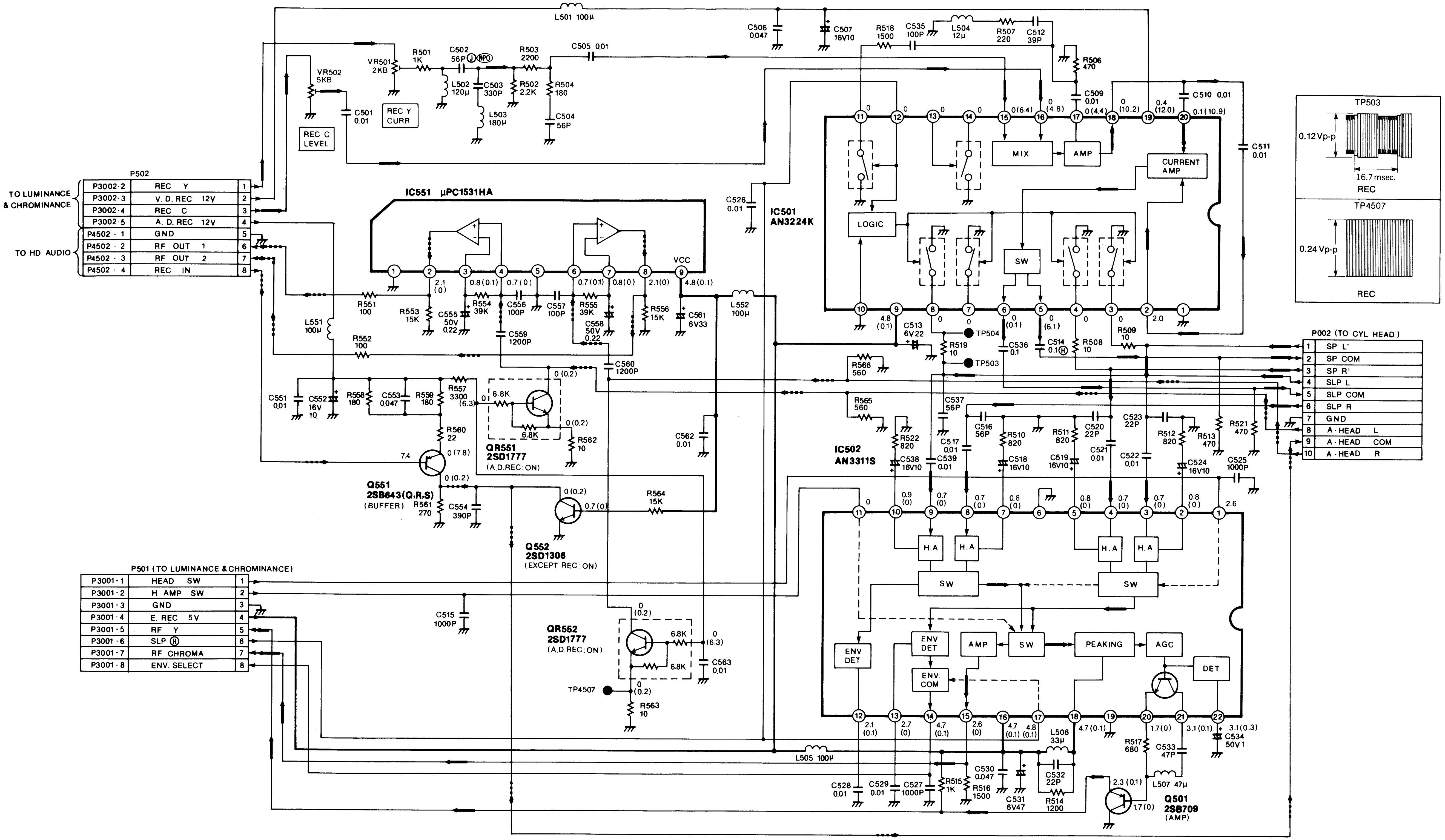
HEAD AMP SCHEMATIC DIAGRAM

VIDEO MAIN SIGNAL PATH IN REC MODE

VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE

HD AUDIO MAIN SIGNAL PATH IN REC MODE

HD AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE


IC551 µPC1531HA
IC501 AN3224K
IC502 AN3311S
Q551 2SB643(Q,R,S) (BUFFER)
Q552 2SD1306 (EXCEPT REC: ON)
QR551 2SD1777 (A.D.REC: ON)
QR552 2SD1777 (A.D.REC: ON)
Q501 2SB709 (AMP)
P502
TO LUMINANCE & CHROMINANCE
P3002·2 REC Y 1
P3002·3 V. D. REC 12V 2
P3002·4 REC C 3
P3002·5 A. D. REC 12V 4
TO HD AUDIO
P4502·1 GND 5
P4502·2 RF OUT 1 6
P4502·3 RF OUT 2 7
P4502·4 REC IN 8
P501 (TO LUMINANCE & CHROMINANCE)
P3001·1 HEAD SW 1
P3001·2 H AMP SW 2
P3001·3 GND 3
P3001·4 E. REC 5V 4
P3001·5 RF Y 5
P3001·6 SLP Ⓗ 6
P3001·7 RF CHROMA 7
P3001·8 ENV. SELECT 8
P002 (TO CYL HEAD)
1 SP L'
2 SP COM
3 SP R'
4 SLP L
5 SLP COM
6 SLP R
7 GND
8 A·HEAD L
9 A·HEAD COM
10 A·HEAD R
REC C LEVEL
REC Y CURR
VR501 2KB
VR502 5KB
L501 100µ
R501 1K
C502 56P
R503 2200
C505 0.01
L502 120µ
C503 330P
R502 2.2K
R504 180
L503 180µ
C504 56P
C501 0.01
C506 0.047
C507 16V10
R518 1500
C535 100P
L504 12µ
R507 220
C512 39P
R506 470
C509 0.01
C510 0.01
C511 0.01
C526 0.01
MIX
AMP
CURRENT AMP
LOGIC
SW
VCC
R551 100
R552 100
L551 100µ
R553 15K
C555 50V 0.22
R554 39K
C556 100P
C557 100P
R555 39K
C558 50V 0.22
R556 15K
C561 6V33
C559 1200P
C560 1200P
L552 100µ
C551 0.01
C552 16V 10
R558 180
C553 0.047
R559 180
R557 3300
6.8K
R560 22
R561 270
C554 390P
R562 10
R564 15K
C562 0.01
C515 1000P
C563 0.01
R563 10
TP4507
TP503
TP504
C513 6V22
R519 10
C536 0.1
C514 0.1Ⓗ
R508 10
R509 10
R566 560
R565 560
C537 56P
R522 820
C538 16V10
C517 0.01
C539 0.01
C516 56P
R510 820
C518 16V10
R511 820
C519 16V10
C520 22P
C521 0.01
C523 22P
C522 0.01
R512 820
R513 470
C524 16V10
R521 470
C525 1000P
H.A
ENV DET
ENV. COM
PEAKING
AGC
DET
C528 0.01
C529 0.01
C527 1000P
R515 1K
R516 1500
C530 0.047
C531 6V47
L506 33µ
C532 22P
R514 1200
L505 100µ
R517 680
C533 47P
L507 47µ
C534 50V1
TP503
0.12Vp-p
16.7 msec.
REC
TP4507
0.24 Vp-p
REC

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH NTSC COLOR SIGNAL (SP MODE). THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH NTSC COLOR SIGNAL (SP MODE).

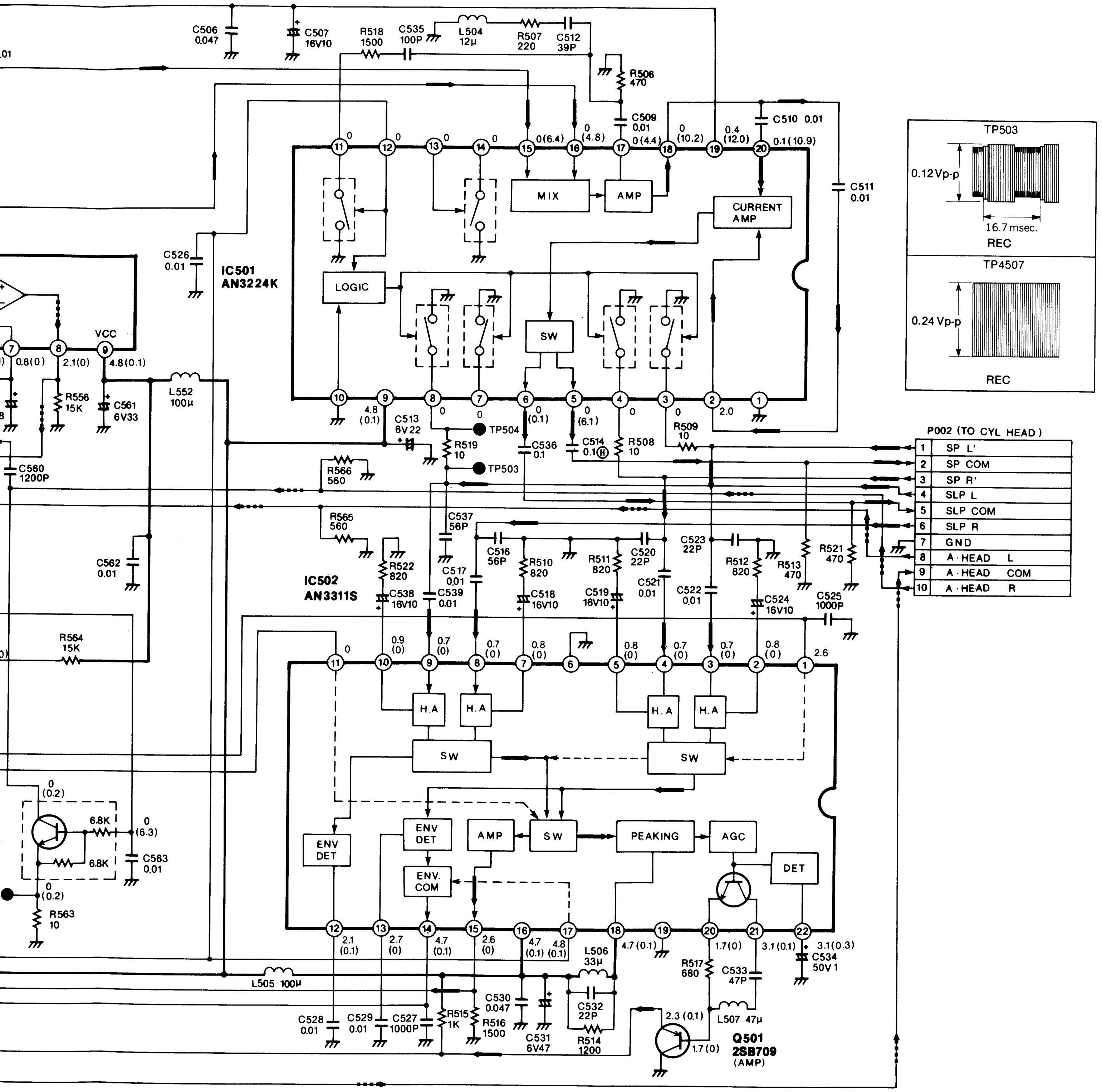
SIGNAL PATH IN REC MODE

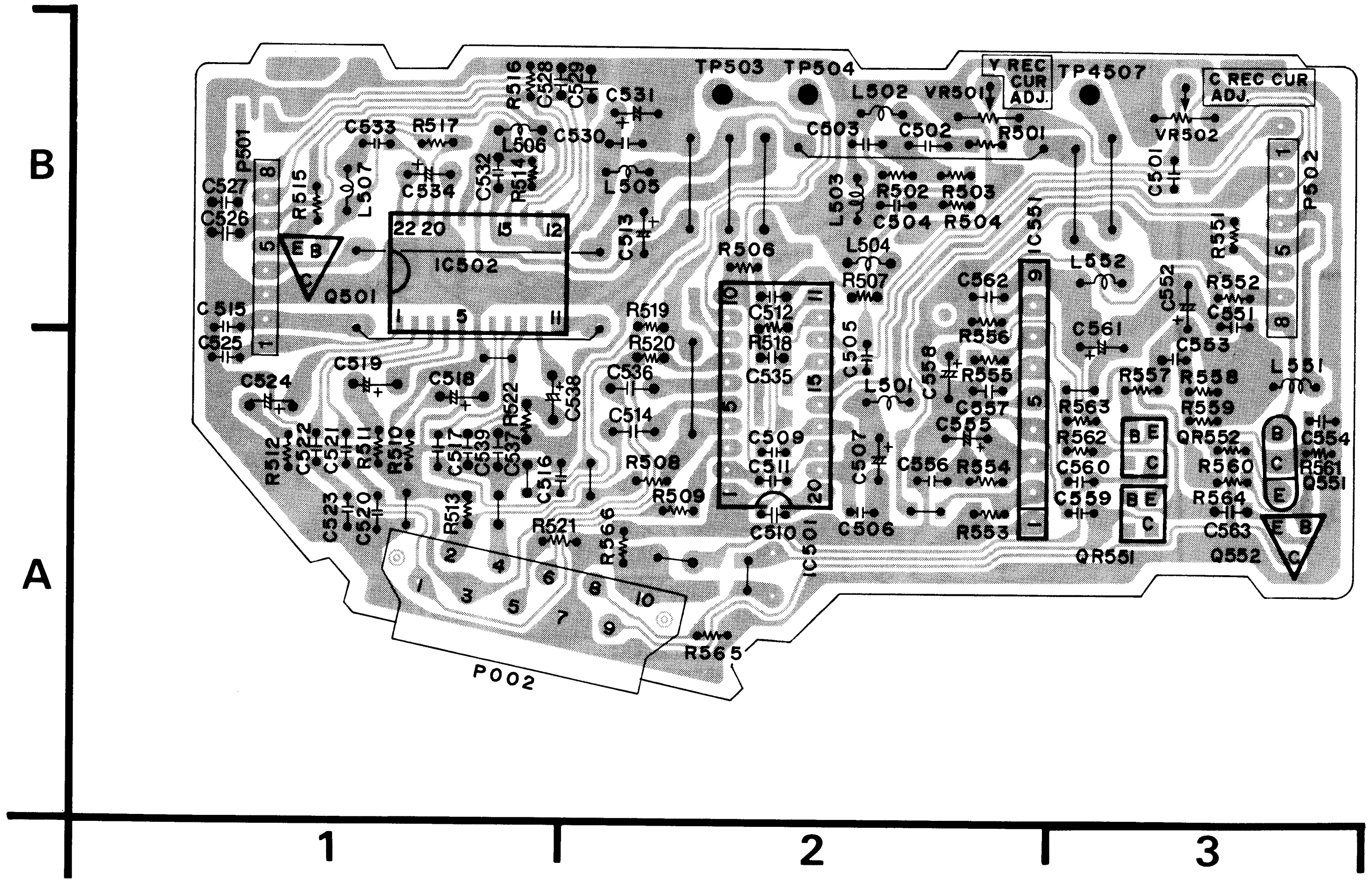
SIGNAL PATH IN PLAYBACK MODE

◀■ ■ ■ HD AUDIO MAIN SIGNAL PATH IN REC MODE

◀■ ■ ■ HD AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

HEAD AMP C.B.A. (VEP05097B)


IC501
AN3224K
IC502
AN3311S
MIX
AMP
CURRENT AMP
LOGIC
SW
H.A
ENV DET
ENV. COM
PEAKING
AGC
DET
VCC
Q501
2SB709
(AMP)
TP503
TP504
TP4507
0.12 Vp-p
16.7 msec.
REC
0.24 Vp-p
P002 (TO CYL HEAD)
1 SP L'
2 SP COM
3 SP R'
4 SLP L
5 SLP COM
6 SLP R
7 GND
8 A·HEAD L
9 A·HEAD COM
10 A·HEAD R
C506 0.047
C507 16V10
R518 1500
C535 100P
L504 12μ
R507 220
C512 39P
R506 470
C509 0.01
C510 0.01
C511 0.01
C526 0.01
L552 100μ
R556 15K
C561 6V33
C560 1200P
C513 6V22
R519 10
C536 0.1
C514 0.1
R508 10
R509 10
R566 560
R565 560
C537 56P
C516 56P
R510 820
R511 820
C520 22P
C523 22P
R512 820
R513 470
R521 470
R522 820
C538 16V10
C517 0.01
C539 0.01
C518 16V10
C519 16V10
C521 0.01
C522 0.01
C524 16V10
C525 1000P
C562 0.01
R564 15K
C563 0.01
R563 10
6.8K
6.8K
L505 100μ
C528 0.01
C529 0.01
C527 1000P
R515 1K
R516 1500
C530 0.047
C531 6V47
C532 22P
R514 1200
L506 33μ
R517 680
C533 47P
L507 47μ
C534 50V1
4
5
6
7
8


TP503
TP504
TP4507
Y REC CUR ADJ.
C REC CUR ADJ.
VR501
VR502
IC502
IC501
IC551
Q501
QR551
QR552
Q551
Q552
P501
P502
P002
B
A
1
2
3

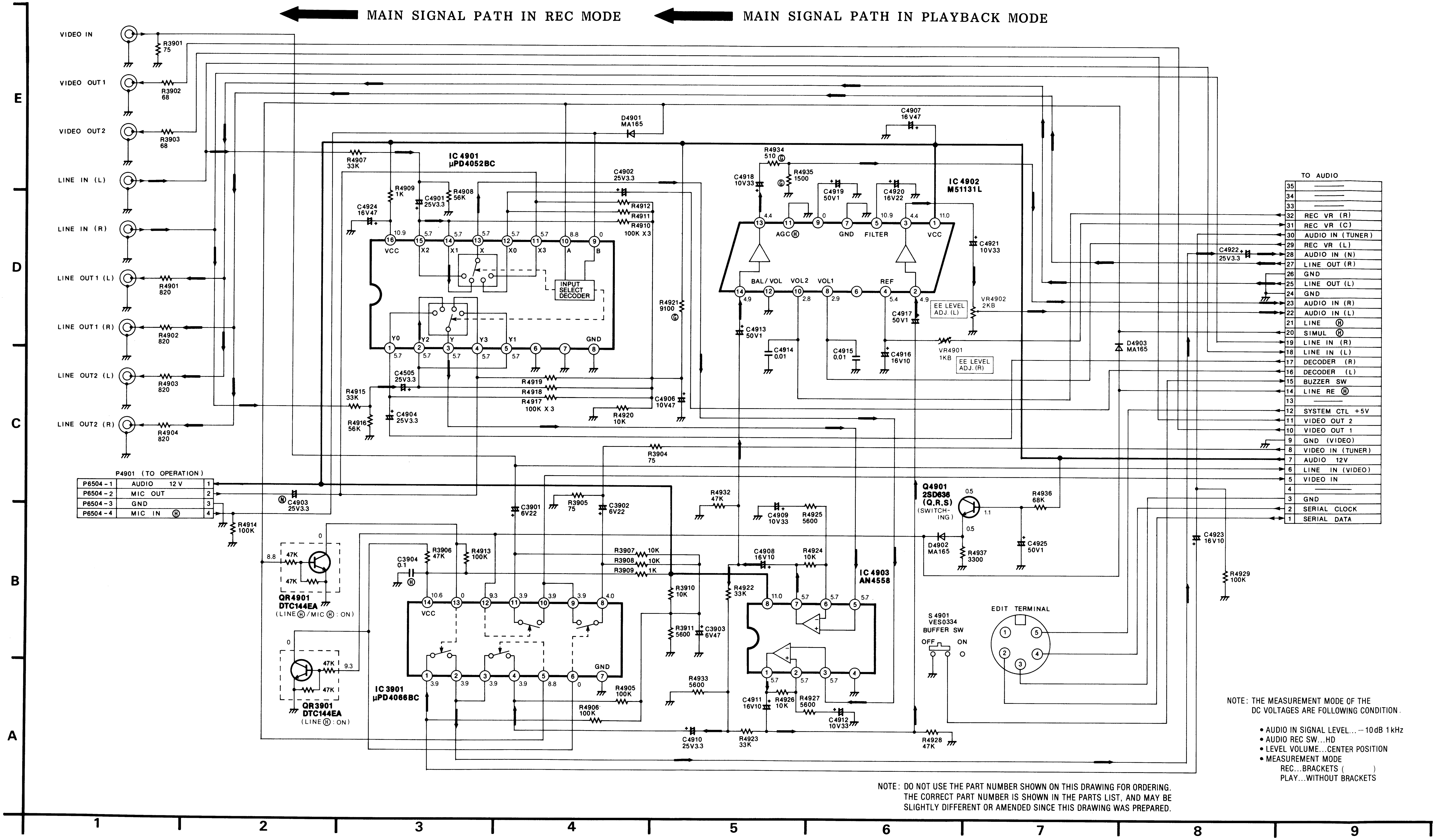
HEAD AMP C.B.A.	
Transistor	
Q501	B-1
Q551	A-3
Q552	A-3
Transistor & Resistor	
QR551	A-3
QR552	A-3
Integrated Circuit	
IC501	A-2
IC502	B-1
IC551	B-2
Test Point	
TP503	B-2
TP504	B-2
TP4507	B-3
Adjustment	
VR501	B-2
VR502	B-3

ADDRESS INFORMATION

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH NTSC COLOR SIGNAL (SP MODE).
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH NTSC COLOR SIGNAL (SP MODE).

INPUT/OUTPUT PACK SCHEMATIC DIAGRAM



MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
VIDEO IN
VIDEO OUT 1
VIDEO OUT 2
LINE IN (L)
LINE IN (R)
LINE OUT 1 (L)
LINE OUT 1 (R)
LINE OUT 2 (L)
LINE OUT 2 (R)
R3901 75
R3902 68
R3903 68
R4901 820
R4902 820
R4903 820
R4904 820
IC 4901 μPD4052BC
INPUT SELECT DECODER
VCC
GND
IC 4902 M51131L
AGC
FILTER
BAL/VOL
VOL2
VOL1
REF
EE LEVEL ADJ. (L)
EE LEVEL ADJ. (R)
VR4901 1KB
VR4902 2KB
D4901 MA165
D4902 MA165
D4903 MA165
P4901 (TO OPERATION)
P6504-1 AUDIO 12V
P6504-2 MIC OUT
P6504-3 GND
P6504-4 MIC IN
QR4901 DTC144EA (LINE / MIC : ON)
QR3901 DTC144EA (LINE : ON)
IC 3901 μPD4066BC
IC 4903 AN4558
Q4901 2SD636 (Q,R,S) (SWITCHING)
S 4901 VES0334 BUFFER SW
OFF
ON
EDIT TERMINAL
TO AUDIO
35
34
33
32 REC VR (R)
31 REC VR (C)
30 AUDIO IN (TUNER)
29 REC VR (L)
28 AUDIO IN (N)
27 LINE OUT (R)
26 GND
25 LINE OUT (L)
24 GND
23 AUDIO IN (R)
22 AUDIO IN (L)
21 LINE
20 SIMUL
19 LINE IN (R)
18 LINE IN (L)
17 DECODER (R)
16 DECODER (L)
15 BUZZER SW
14 LINE RE
13
12 SYSTEM CTL +5V
11 VIDEO OUT 2
10 VIDEO OUT 1
9 GND (VIDEO)
8 VIDEO IN (TUNER)
7 AUDIO 12V
6 LINE IN (VIDEO)
5 VIDEO IN
4
3 GND
2 SERIAL CLOCK
1 SERIAL DATA
E
D
C
B
A
1
2
3
4
5
6
7
8
9

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGES ARE FOLLOWING CONDITION.

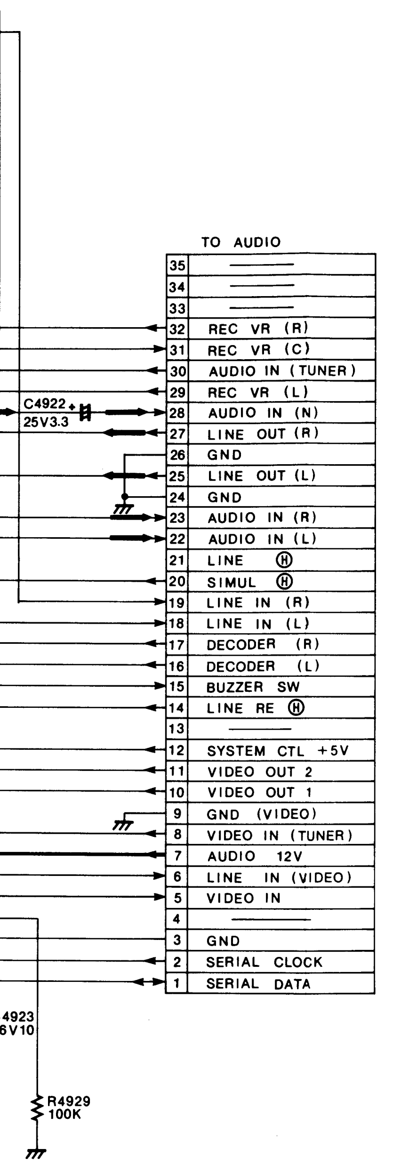
- AUDIO IN SIGNAL LEVEL...−10dB 1kHz
- AUDIO REC SW...HD
- LEVEL VOLUME...CENTER POSITION
- MEASUREMENT MODE
  REC...BRACKETS ( )
  PLAY...WITHOUT BRACKETS

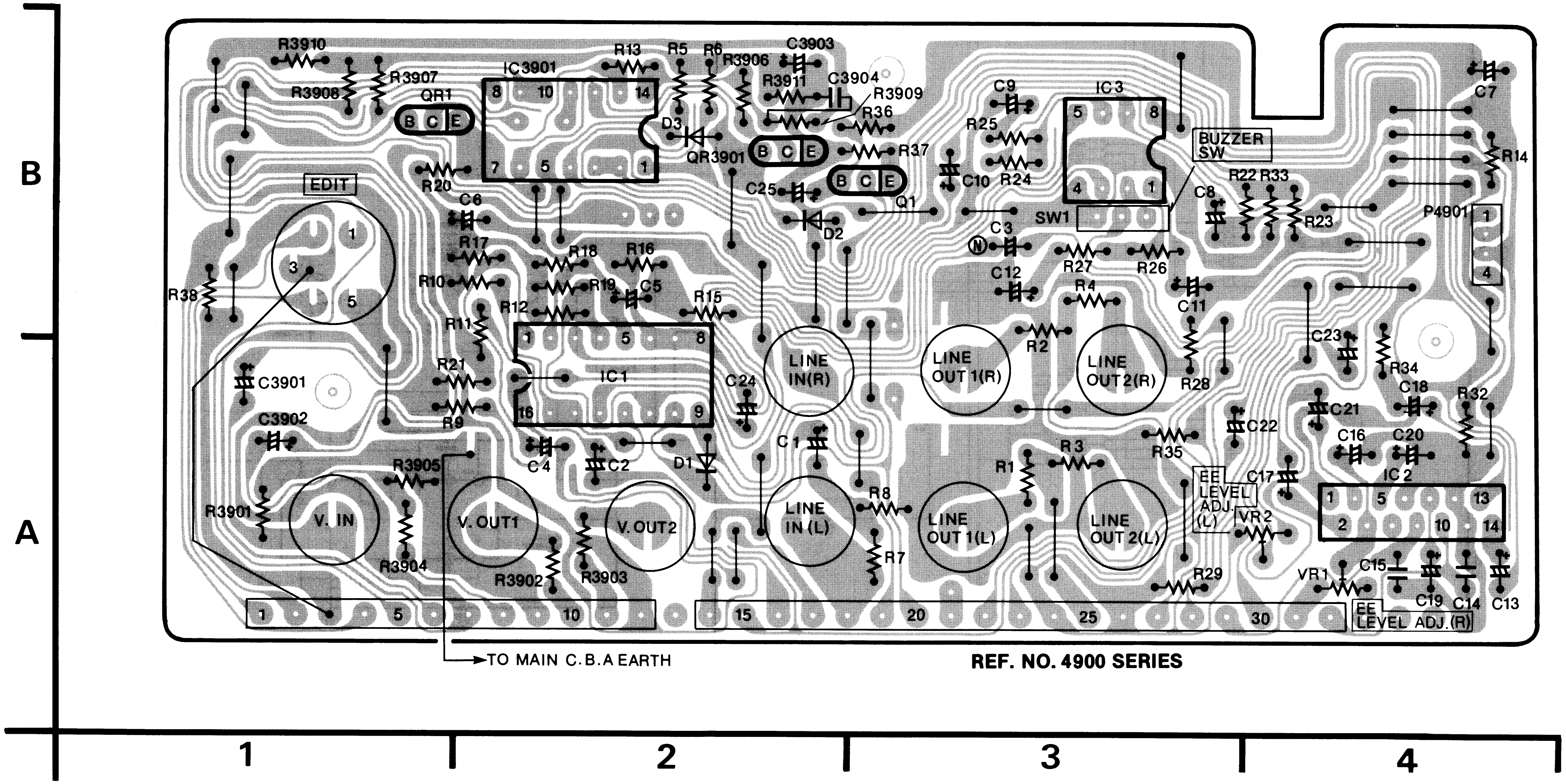
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

INPUT/OUTPUT PACK C.B.A. (VEP04201A)

INPUT/OUTPUT PACK C.B.A.	
Transistor	
Q4901	B-3
Transistor & Resistor	
QR3901	B-2
QR4901	B-1
Integrated Circuit	
IC3901	B-2
IC4901	A-2
IC4902	A-4
IC4903	B-3
Adjustment	
VR4901	A-4
VR4902	A-4

ADDRESS INFORMATION


TO AUDIO
35
34
33
32 REC VR (R)
31 REC VR (C)
30 AUDIO IN (TUNER)
29 REC VR (L)
28 AUDIO IN (N)
27 LINE OUT (R)
26 GND
25 LINE OUT (L)
24 GND
23 AUDIO IN (R)
22 AUDIO IN (L)
21 LINE Ⓗ
20 SIMUL Ⓗ
19 LINE IN (R)
18 LINE IN (L)
17 DECODER (R)
16 DECODER (L)
15 BUZZER SW
14 LINE RE Ⓗ
13
12 SYSTEM CTL +5V
11 VIDEO OUT 2
10 VIDEO OUT 1
9 GND (VIDEO)
8 VIDEO IN (TUNER)
7 AUDIO 12V
6 LINE IN (VIDEO)
5 VIDEO IN
4
3 GND
2 SERIAL CLOCK
1 SERIAL DATA
C4922 25V3.3
4923 6V10
R4929 100K

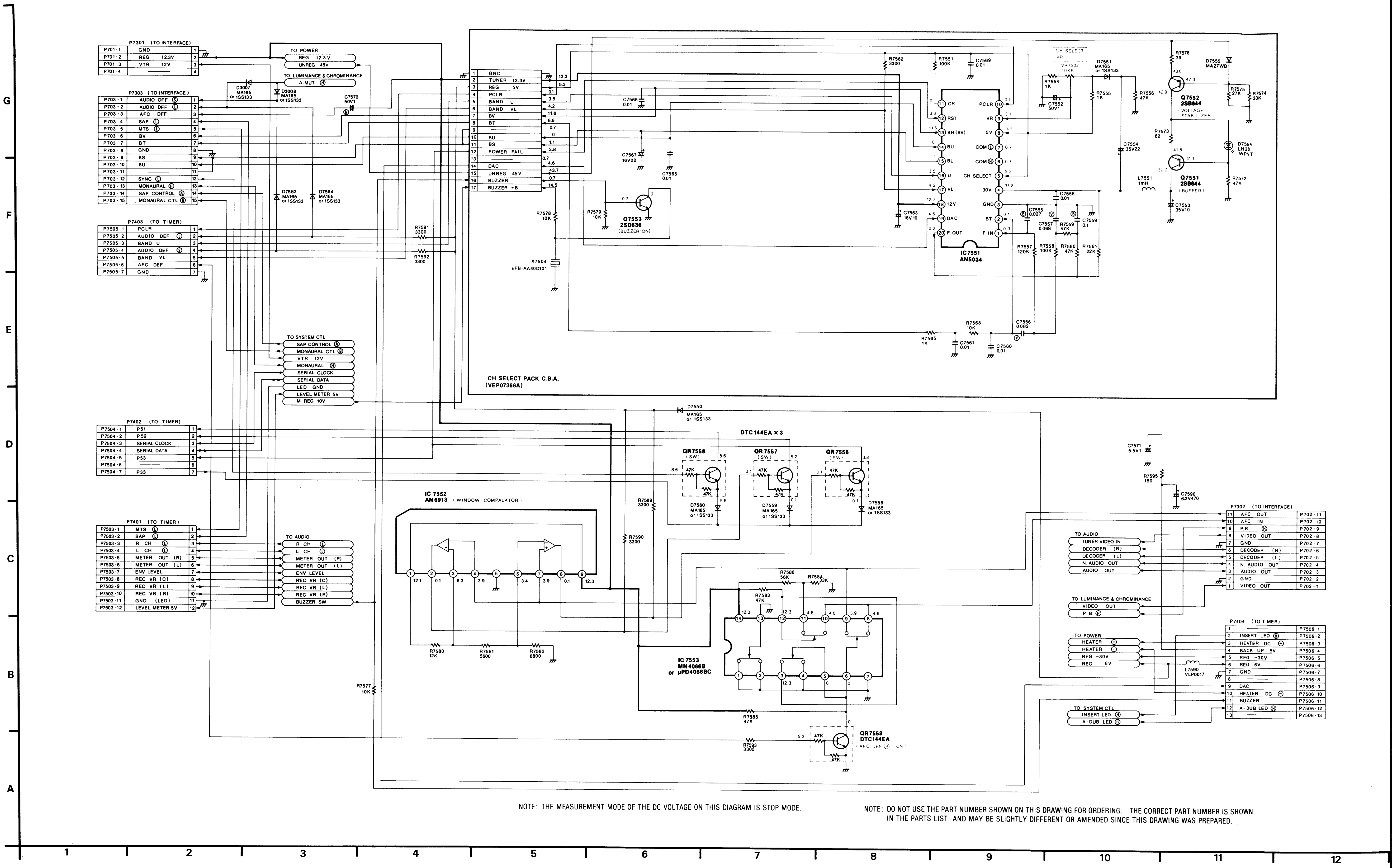

B
A
1
2
3
4
R3910
R3908
R3907
QR1
B C E
IC3901
R13
R5
R6
R3906
C3903
R3911
C3904
R3909
R36
R37
D3
QR3901
C25
D2
Q1
C9
R25
R24
C10
IC3
BUZZER SW
SW1
R22 R33
C8
R23
C7
R14
P4901
EDIT
R20
C6
R17
R18
R16
R10
R19
C5
R12
R15
R11
R38
C3
C12
R27
R26
C11
R4
IC1
C24
LINE IN(R)
LINE OUT 1(R)
LINE OUT 2(R)
R2
R28
C23
R34
C18
R32
C3901
R21
R9
C3902
C4
C2
D1
C1
R3
R1
R35
C22
C21
C16
C20
IC2
R3905
R3901
V. IN
R3904
V. OUT1
V. OUT2
R3902
R3903
LINE IN (L)
R8
R7
LINE OUT 1(L)
LINE OUT 2(L)
EE LEVEL ADJ. (L)
VR2
C17
R29
VR1
C15
C19
C14
C13
EE LEVEL ADJ. (R)
1 5 10 15 20 25 30
TO MAIN C.B.A EARTH
REF. NO. 4900 SERIES

NOTE: THE MEASUREMENT MODE OF THE
DC VOLTAGES ARE FOLLOWING CONDITION.

- AUDIO IN SIGNAL LEVEL...−10dB 1kHz
- AUDIO REC SW...HD
- LEVEL VOLUME...CENTER POSITION
- MEASUREMENT MODE
  - REC...BRACKETS ( )
  - PLAY...WITHOUT BRACKETS

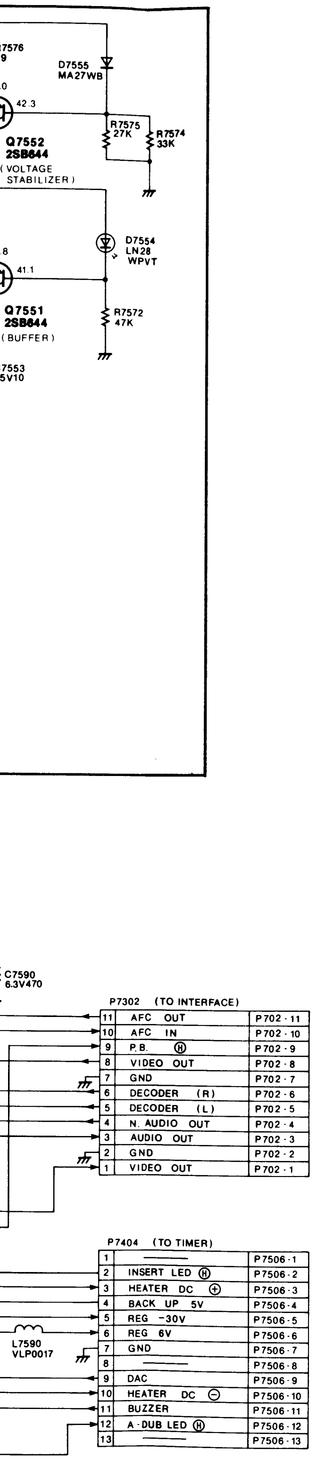
9

CH SELECT Section & CH SELECT PACK SCHEMATIC DIAGRAM


P7301 (TO INTERFACE)
P701-1 GND 1
P701-2 REG 12.3V 2
P701-3 VTR 12V 3
P701-4 4
P7303 (TO INTERFACE)
P703-1 AUDIO DEF Ⓢ
P703-2 AUDIO DEF Ⓛ
P703-3 AFC DEF
P703-4 SAP Ⓛ
P703-5 MTS Ⓛ
P703-6 BV
P703-7 BT
P703-8 GND
P703-9 BS
P703-10 BU
P703-11
P703-12 SYNC Ⓛ
P703-13 MONAURAL Ⓗ
P703-14 SAP CONTROL Ⓐ
P703-15 MONAURAL CTL Ⓑ
P7403 (TO TIMER)
P7505-1 PCLR
P7505-2 AUDIO DEF Ⓛ
P7505-3 BAND U
P7505-4 AUDIO DEF Ⓢ
P7505-5 BAND VL
P7505-6 AFC DEF
P7505-7 GND
TO POWER
REG 12.3V
UNREG 45V
TO LUMINANCE & CHROMINANCE
A-MUT Ⓗ
D3007 MA165 or 1SS133
D3008 MA165 or 1SS133
C7570 50V1
D7563 MA165 or 1SS133
D7564 MA165 or 1SS133
R7591 3300
R7592 3300
1 GND
2 TUNER 12.3V
3 REG 5V
4 PCLR
5 BAND U
6 BAND VL
7 BV
8 BT
9
10 BU
11 BS
12 POWER FAIL
13
14 DAC
15 UNREG 45V
16 BUZZER
17 BUZZER +B
C7566 0.01
C7567 16V22
C7565 0.01
R7578 10K
R7579 10K
Q7553 2SD638 (BUZZER ON)
X7504 EFB-AA40D101
R7562 3300
R7551 100K
C7569 0.01
CR
RST
BH (BV)
BU
BL
U
VL
12V
DAC
F OUT
PCLR
VR
5V
COM Ⓛ
COM Ⓡ
CH SELECT
30V
GND
BT
F IN
IC7551 AN5034
C7563 16V10
CH SELECT VR VR7502 10KB
R7554 1K
C7552 50V1
D7551 MA165 or 1SS133
R7555 1K
R7556 47K
R7576 39
D7555 MA27WB
Q7552 2SB644 (VOLTAGE STABILIZER)
R7575 27K
R7574 33K
R7573 82
D7554 LN28 WPVT
Q7551 2SB644 (BUFFER)
R7572 47K
C7554 35V22
L7551 1mH
C7553 35V10
C7558 0.01
C7555 0.027
C7557 0.068
R7559 47K
C7559 0.1
R7557 120K
R7558 100K
R7560 47K
R7561 22K
R7568 10K
C7556 0.082
R7565 1K
C7561 0.01
C7560 0.01
CH SELECT PACK C.B.A. (VEP07366A)
TO SYSTEM CTL
SAP CONTROL Ⓐ
MONAURAL CTL Ⓑ
VTR 12V
MONAURAL Ⓗ
SERIAL CLOCK
SERIAL DATA
LED GND
LEVEL METER 5V
M-REG 10V
D7550 MA165 or 1SS133
P7402 (TO TIMER)
P7504-1 P51
P7504-2 P52
P7504-3 SERIAL CLOCK
P7504-4 SERIAL DATA
P7504-5 P53
P7504-6
P7504-7 P33
DTC144EA × 3
QR7558 (SW)
QR7557 (SW)
QR7556 (SW)
D7560 MA165 or 1SS133
D7559 MA165 or 1SS133
D7558 MA165 or 1SS133
R7589 3300
R7590 3300
P7401 (TO TIMER)
P7503-1 MTS Ⓛ
P7503-2 SAP Ⓛ
P7503-3 R CH Ⓛ
P7503-4 L CH Ⓛ
P7503-5 METER OUT (R)
P7503-6 METER OUT (L)
P7503-7 ENV LEVEL
P7503-8 REC VR (C)
P7503-9 REC VR (L)
P7503-10 REC VR (R)
P7503-11 GND (LED)
P7503-12 LEVEL METER 5V
TO AUDIO
R CH Ⓛ
L CH Ⓛ
METER OUT (R)
METER OUT (L)
ENV LEVEL
REC VR (C)
REC VR (L)
REC VR (R)
BUZZER SW
IC 7552 AN6913 (WINDOW COMPALATOR)
R7580 12K
R7581 5600
R7582 6800
R7577 10K
R7586 56K
R7584 33K
R7583 47K
IC 7553 MN4066B or µPD4066BC
R7585 47K
R7593 3300
QR7559 DTC144EA (AFC DEF Ⓗ ON)
C7571 5.5V1
R7595 180
C7590 6.3V470
P7302 (TO INTERFACE)
AFC OUT P702-11
AFC IN P702-10
P.B Ⓗ P702-9
VIDEO OUT P702-8
GND P702-7
DECODER (R) P702-6
DECODER (L) P702-5
N. AUDIO OUT P702-4
AUDIO OUT P702-3
GND P702-2
VIDEO OUT P702-1
TO AUDIO
TUNER VIDEO IN
DECODER (R)
DECODER (L)
N. AUDIO OUT
AUDIO OUT
TO LUMINANCE & CHROMINANCE
VIDEO OUT
P. B Ⓗ
TO POWER
HEATER ⊕
HEATER ⊖
REG -30V
REG 6V
L7590 VLP0017
P7404 (TO TIMER)
INSERT LED Ⓗ P7506-2
HEATER DC ⊕ P7506-3
BACK UP 5V P7506-4
REG -30V P7506-5
REG 6V P7506-6
GND P7506-7
DAC P7506-9
HEATER DC ⊖ P7506-10
BUZZER P7506-11
A-DUB LED Ⓗ P7506-12
TO SYSTEM CTL
INSERT LED Ⓗ
A-DUB LED Ⓗ
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.


7576
9
D7555
MA27WB
42.3
R7575
27K
R7574
33K
Q7552
2SB644
(VOLTAGE
STABILIZER)
D7554
LN28
WPVT
41.1
Q7551
2SB644
(BUFFER)
R7572
47K
7553
5V10
C7590
6.3V470
P7302 (TO INTERFACE)
11 AFC OUT P702-11
10 AFC IN P702-10
9 P.B. Ⓗ P702-9
8 VIDEO OUT P702-8
7 GND P702-7
6 DECODER (R) P702-6
5 DECODER (L) P702-5
4 N. AUDIO OUT P702-4
3 AUDIO OUT P702-3
2 GND P702-2
1 VIDEO OUT P702-1
P7404 (TO TIMER)
1 P7506-1
2 INSERT LED Ⓗ P7506-2
3 HEATER DC ⊕ P7506-3
4 BACK UP 5V P7506-4
5 REG -30V P7506-5
6 REG 6V P7506-6
7 GND P7506-7
8 P7506-8
9 DAC P7506-9
10 HEATER DC ⊖ P7506-10
11 BUZZER P7506-11
12 A-DUB LED Ⓗ P7506-12
13 P7506-13
L7590
VLP0017

ART NUMBER IS SHOWN
WAS PREPARED.

11 12

CH SELECT PACK C.B.A. (VEP07366A)

CH SELECT PACK C.B.A.	
Transistor	
Q7551	B-2
Q7552	A-2
Q7553	A-2
Integrated Circuit	
IC7551	A-1
Adjustment	
VR7502	A-2

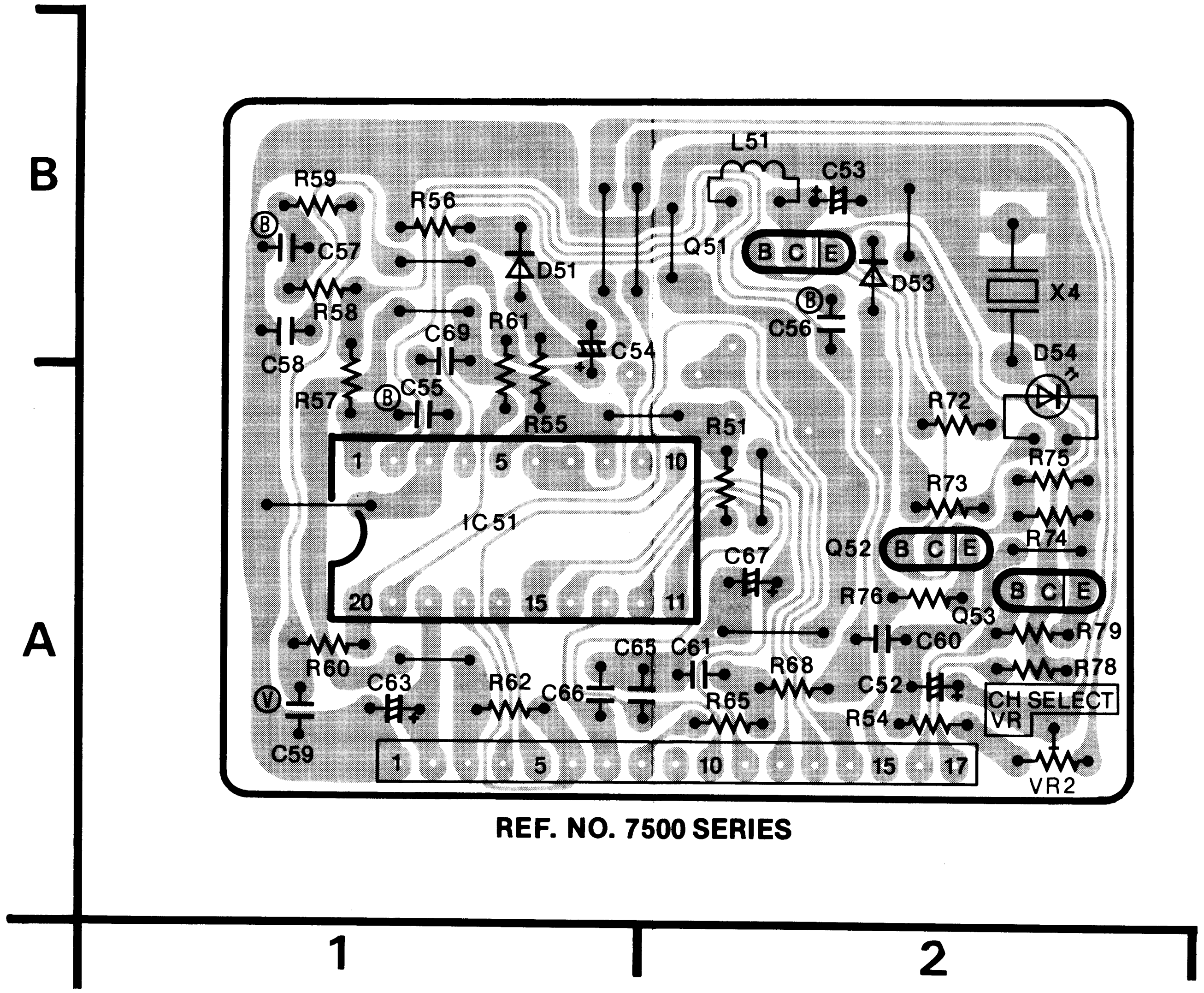
ADDRESS INFORMATION

POWER SUPPLY SECTION IN MAIN C.B.A.	
Transistor	
Q1101	B-6
Transistor & Resistor	
QR1101	B-7
Test Point	
TP1002	B-8
TP1003	B-6
TP GND	B-6

ADDRESS INFORMATION

SYSTEM CONTROL SECTION IN MAIN C.B.A.	
Transistor	
Q1401	E-3
Q1501	E-1
Q1502	D-2
Q6005	C-5
Q6006	C-7
Q6007	D-7
Q6008	D-6
Q6009	D-7
Q6010	D-6
Q6011	D-7
Q6015	D-3
Q6016	A-5
Q6017	C-7
Q6018	C-7
Q6019	B-5
Transistor & Resistor	
QR6001	C-5
QR6002	C-5
QR6003	D-9
QR6004	D-5
QR6005	C-7
QR6006	C-6
QR6008	C-7
QR6009	C-5
QR6010	D-6
QR6011	B-6
QR6012	B-5
QR6013	B-5
QR6051	C-3
QR6052	C-6
Integrated Circuit	
IC6001	D-6
IC6002	D-5
IC6003	C-5
IC6004	D-5

ADDRESS INFORMATION

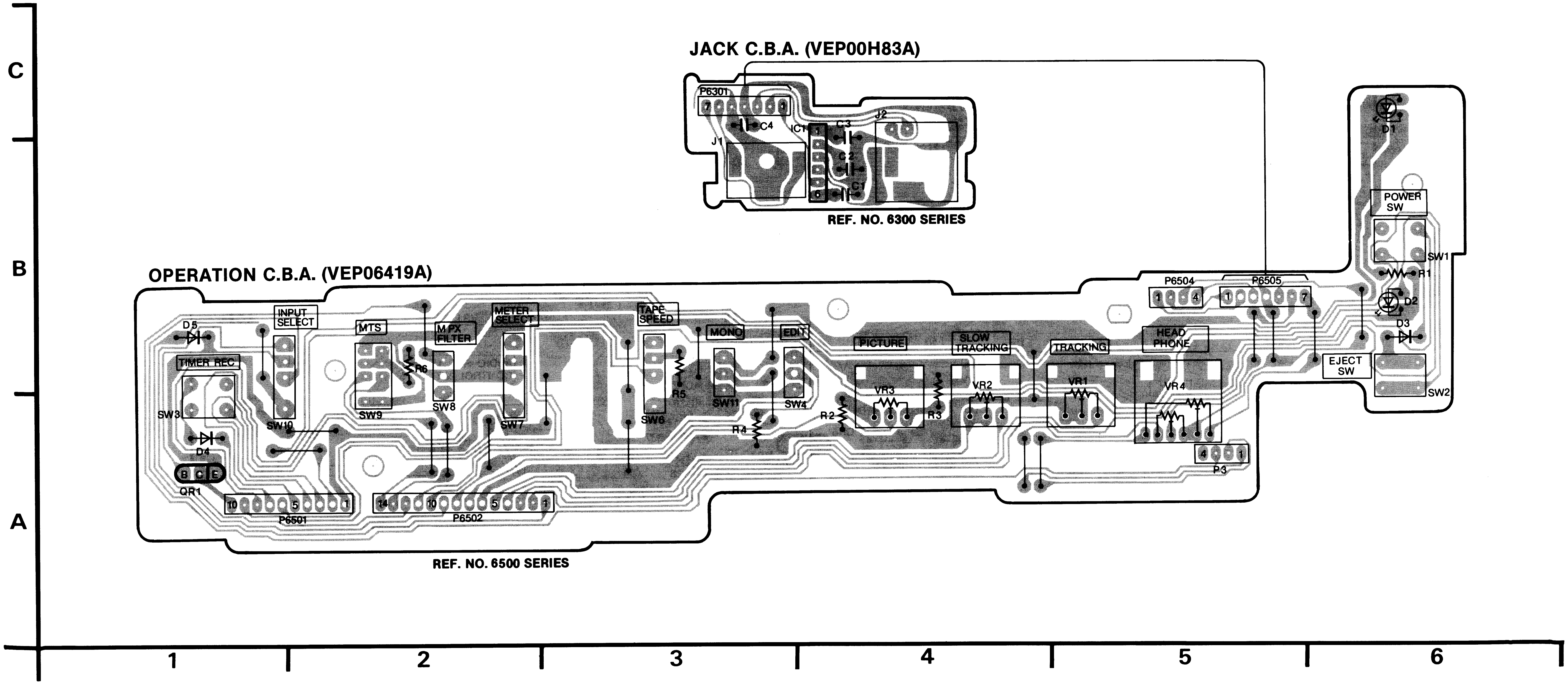

B
A
1
2
L51
C53
R59
R56
C57
Q51
B C E
D51
D53
X4
R58
C56
C58
C69
R61
C54
D54
R57
C55
R55
R51
R72
R75
IC51
1
5
10
20
15
11
R73
C67
Q52
R74
R76
Q53
C60
R79
R60
C63
R62
C66
C65
C61
R68
R78
C52
CH SELECT VR
R65
R54
C59
17
VR2

REF. NO. 7500 SERIES

OPERATION C.B.C. (VEP06419A) & JACK C.B.A. (VEP00H83A)

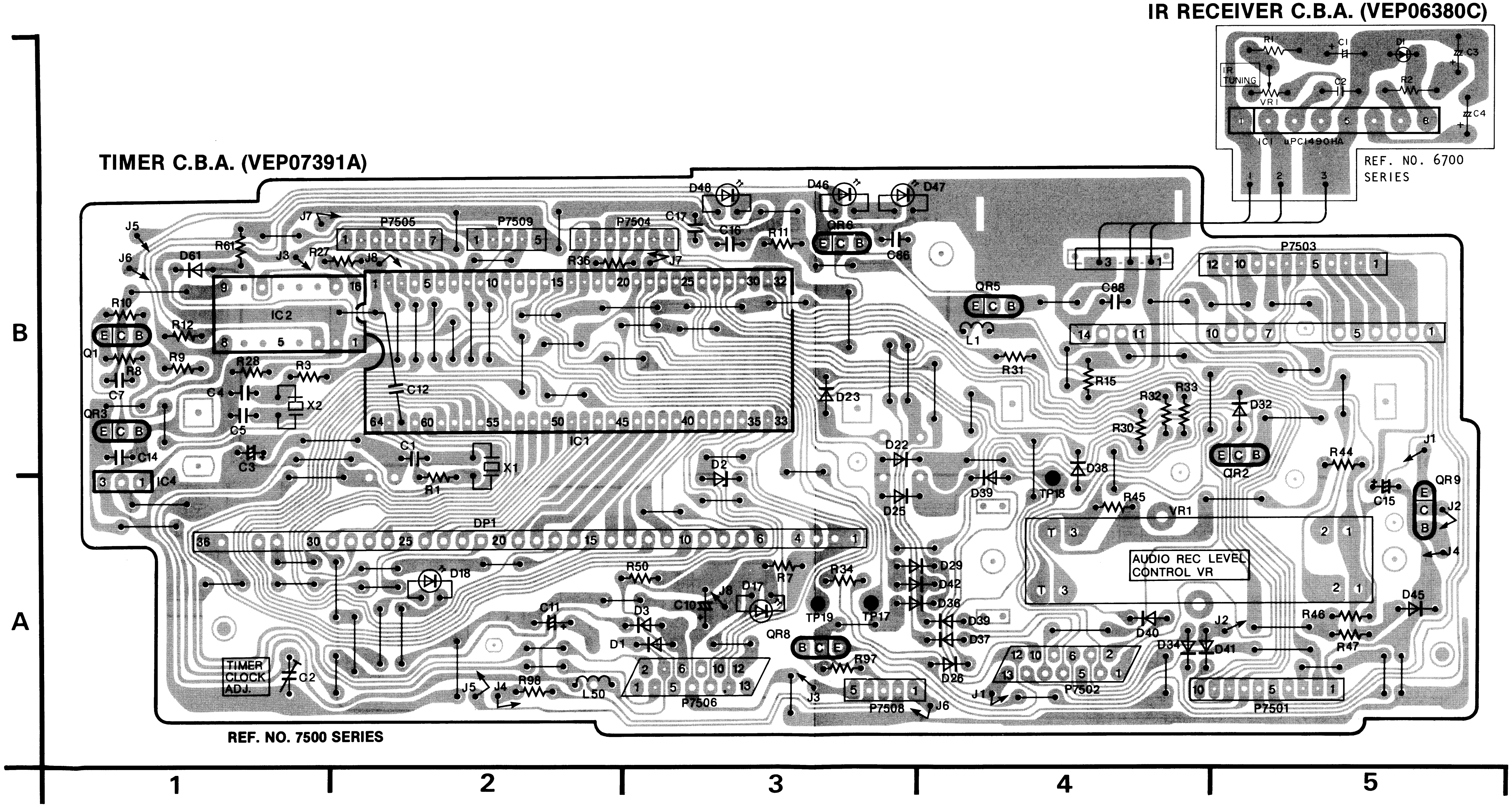
OPERATION & JACK C.B.A.	
Transistor & Resistor	
QR6501	A-1
Integrated Circuit	
IC6301	B-4
Adjustment	
VR6501	A-5
VR6502	A-4
VR6503	A-4
VR6504	A-5

ADDRESS INFORMATION



C
B
A
1
2
3
4
5
6
JACK C.B.A. (VEP00H83A)
P6301
7
1
C4
IC1
C3
C2
C1
J1
J2
REF. NO. 6300 SERIES
D1
POWER SW
SW1
R1
D2
D3
EJECT SW
SW2
OPERATION C.B.A. (VEP06419A)
D5
INPUT SELECT
MTS
M PX FILTER
METER SELECT
TAPE SPEED
MONO
EDIT
PICTURE
SLOW TRACKING
TRACKING
HEAD PHONE
P6504
1
4
P6505
1
7
TIMER REC
SW3
SW10
SW9
R6
SW8
SW7
SW6
R5
SW11
SW4
R4
R2
VR3
R3
VR2
VR1
VR4
P3
4
1
D4
B C E
QR1
10
5
1
P6501
14
10
5
1
P6502
REF. NO. 6500 SERIES

TIMER C.B.A. (VEP07391A) & IR RECEIVER C.B.A. (VEP06380C)



IR RECEIVER C.B.A. (VEP06380C)

TIMER C.B.A. (VEP07391A)

IR TUNING
VR1
R1
C1
D1
C3
C2
R2
C4
IC1 uPC1490HA
REF. NO. 6700 SERIES
P7505
P7509
P7504
P7503
P7501
P7502
P7506
P7508
IC1
IC2
IC4
DP1
Q1
QR3
QR5
QR6
QR2
QR8
QR9
X1
X2
L1
L50
TP17
TP18
TP19
D2
D3
D17
D18
D22
D23
D25
D29
D32
D38
D39
D40
D41
D42
D45
D46
D47
D48
D61
AUDIO REC LEVEL CONTROL VR
TIMER CLOCK ADJ.
REF. NO. 7500 SERIES
B
A
1
2
3
4
5

TIMER & IR RECEIVER C.B.A.	
Transistor	
Q7501	B-1
Transistor & Resistor	
QR7502	B-5
QR7503	B-1
QR7505	B-4
QR7506	B-3
QR7508	A-3
QR7509	A-5
Integrated Circuit	
IC6701	C-5
IC7501	B-2
IC7502	B-1
IC7504	A-1
Test Point	
TP7517	A-3
TP7518	A-4
TP7519	A-3
Adjustment	
VR6701	C-5
VR7501	A-4
C7502	A-1

ADDRESS INFORMATION

MAIN C.B.A. (VEP03448A) [Power Supply, System Control, Servo, Luminance & Chrominance, CH Select]

SERVO SECTION IN MAIN C.B.A.	
Transistor	
Q2001	C-6
Q2002	C-6
Q2003	A-4
Q2004	A-4
Q2005	A-4
Transistor & Resistor	
QR2001	A-4
QR2002	C-4
QR2003	A-4
QR2004	A-4
QR2005	A-4
QR2007	B-4
QR2008	C-5
Integrated Circuit	
IC2001	C-4
Test Point	
TP2001	B-5
TP2002	B-5
TP2008	B-5
TP2009	B-4
TP2015	B-4
TP2025	B-4
TP2026	B-4
TP GND	A-4
Adjustment	
VR2001	A-5
VR2002	B-3
VR2006	A-3
VR2011	A-3
VR2013	C-4

ADDRESS INFORMATION

AUDIO SECTION IN MAIN C.B.A.	
Transistor	
Q4001	D-7
Q4002	E-8
Q4003	E-8
Q4004	E-8
Q4005	E-8
Q4006	D-9
Q4007	C-9
Q4010	E-7
Q4011	E-8
Transistor & Resistor	
QR4002	D-6
QR4003	D-9
Integrated Circuit	
IC4001	D-8
Test Point	
TP4002	D-8
TP4003	D-8
TP4502	D-6
TP4511	D-6
Adjustment	
VR4001	E-8
VR4002	D-7
VR4003	E-4
VR4004	E-4
VR4510	D-6

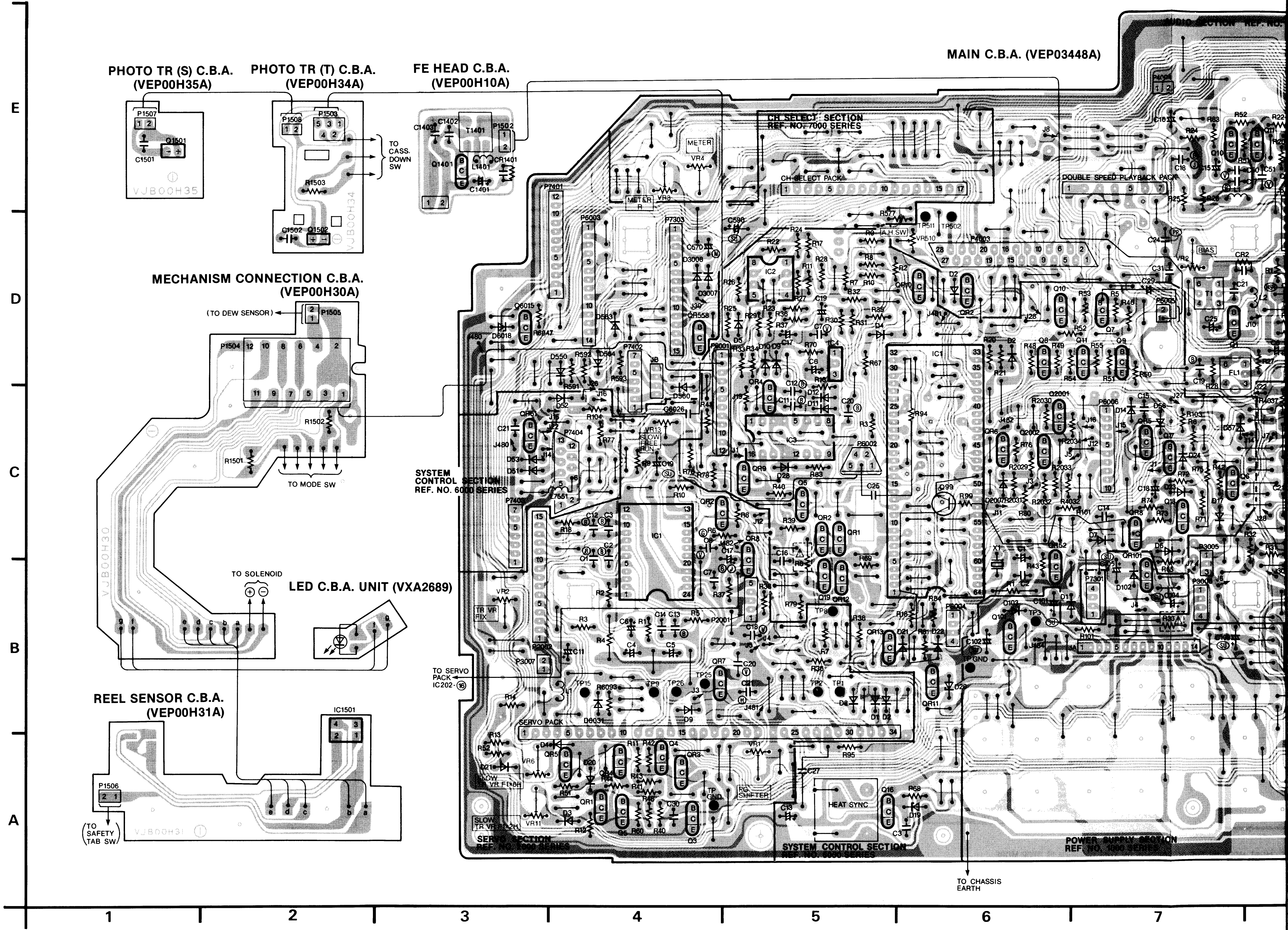
ADDRESS INFORMATION

CH SELECT SECTION IN MAIN C.B.A.	
Transistor & Resistor	
QR7556	D-9
QR7557	D-10
QR7558	D-4
QR7559	D-10
Integrated Circuit	
IC7552	E-9
IC7553	E-9

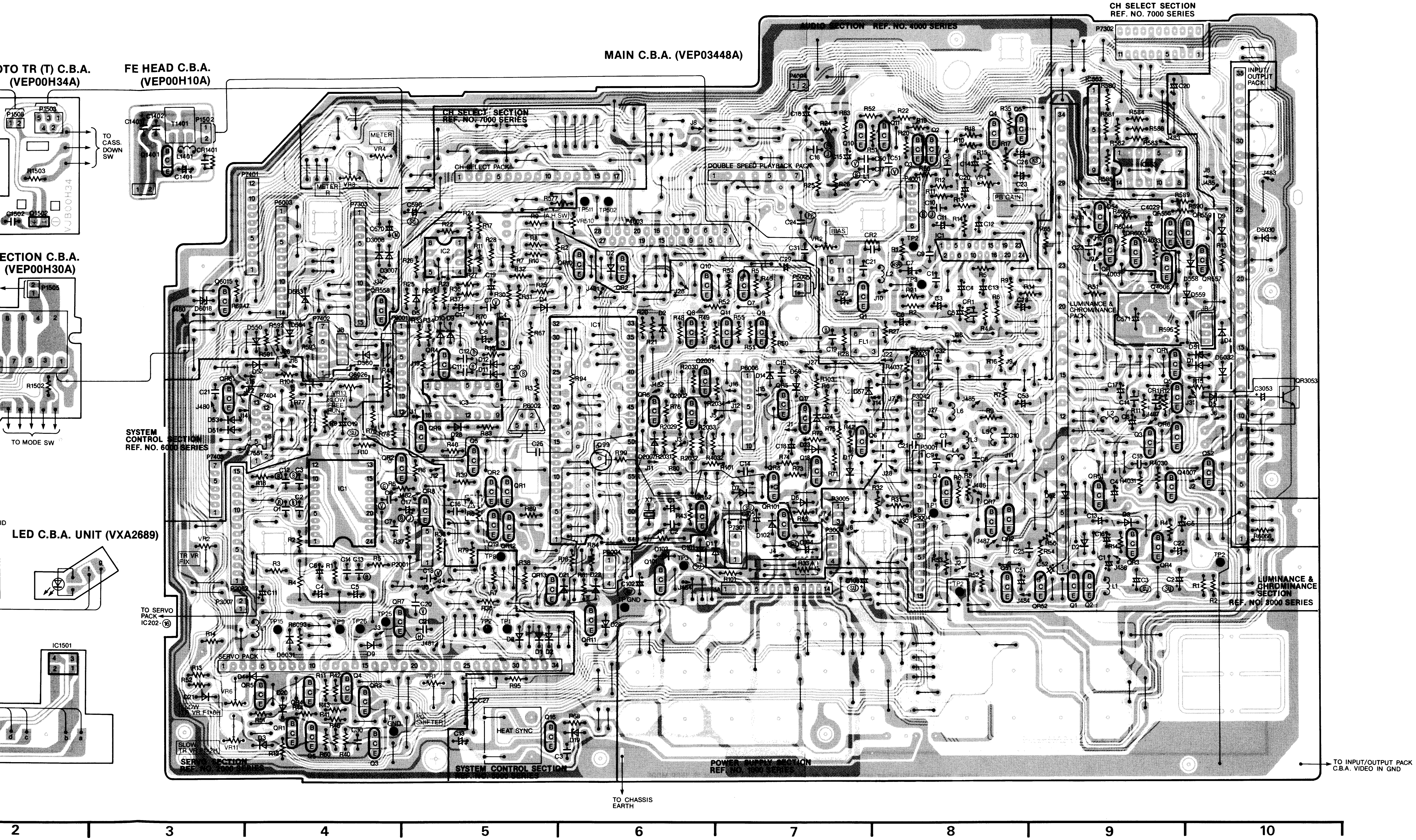
ADDRESS INFORMATION

LUMINANCE & CHROMINANCE SECTION IN MAIN C.B.A.	
Transistor	
Q3001	B-9
Q3002	B-9
Q3003	C-9
Q3004	C-8
Q3005	C-9
Q3051	B-8
Q3052	C-10
Q3054	D-9
Transistor & Resistor	
QR3001	C-9
QR3002	B-8
QR3003	B-9
QR3004	B-9
QR3006	C-9
QR3007	C-8
QR3051	C-9
QR3052	B-9
QR3053	C-10
Test Point	
TP3001	C-8
TP3002	B-10

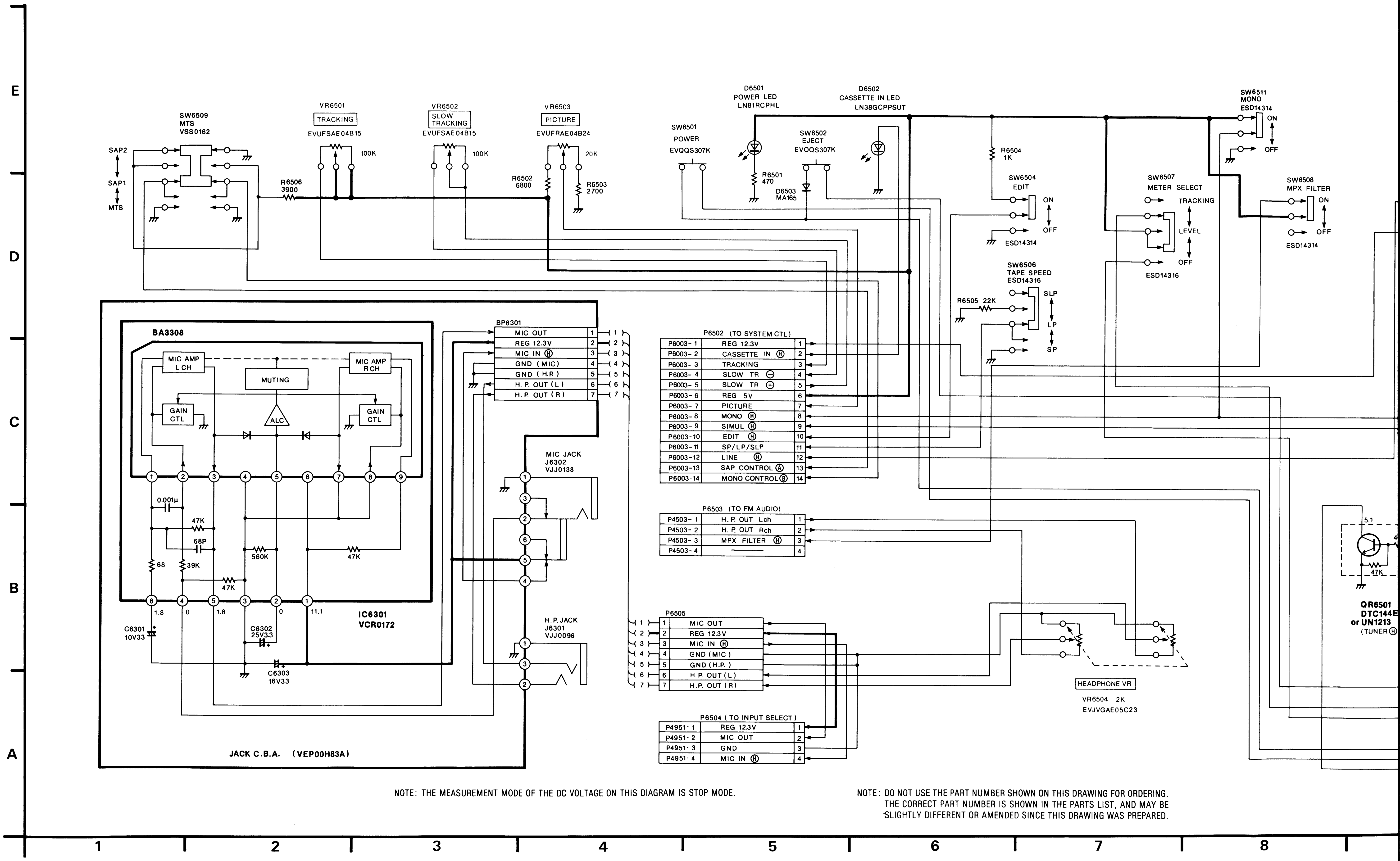
ADDRESS INFORMATION


MAIN C.B.A. (VEP03448A)
PHOTO TR (S) C.B.A. (VEP00H35A)
PHOTO TR (T) C.B.A. (VEP00H34A)
FE HEAD C.B.A. (VEP00H10A)
MECHANISM CONNECTION C.B.A. (VEP00H30A)
LED C.B.A. UNIT (VXA2689)
REEL SENSOR C.B.A. (VEP00H31A)
TO CASS. DOWN SW
(TO DEW SENSOR)
TO MODE SW
TO SOLENOID
(TO SAFETY TAB SW)
TO SERVO PACK IC202-⑯
TO CHASSIS EARTH
CH SELECT SECTION REF. NO. 7000 SERIES
SYSTEM CONTROL SECTION REF. NO. 6000 SERIES
SERVO SECTION REF. NO. 2000 SERIES
SYSTEM CONTROL SECTION REF. NO. 6000 SERIES
POWER SUPPLY SECTION REF. NO. 1000 SERIES
AUDIO SECTION REF. NO.
CH SELECT PACK
DOUBLE SPEED PLAYBACK PACK
SERVO PACK
HEAT SYNC
IC1
IC2
IC3
IC1501
E
D
C
B
A
1
2
3
4
5
6
7

[Power Supply, System Control, Servo, Luminance & Chrominance, CH Select]

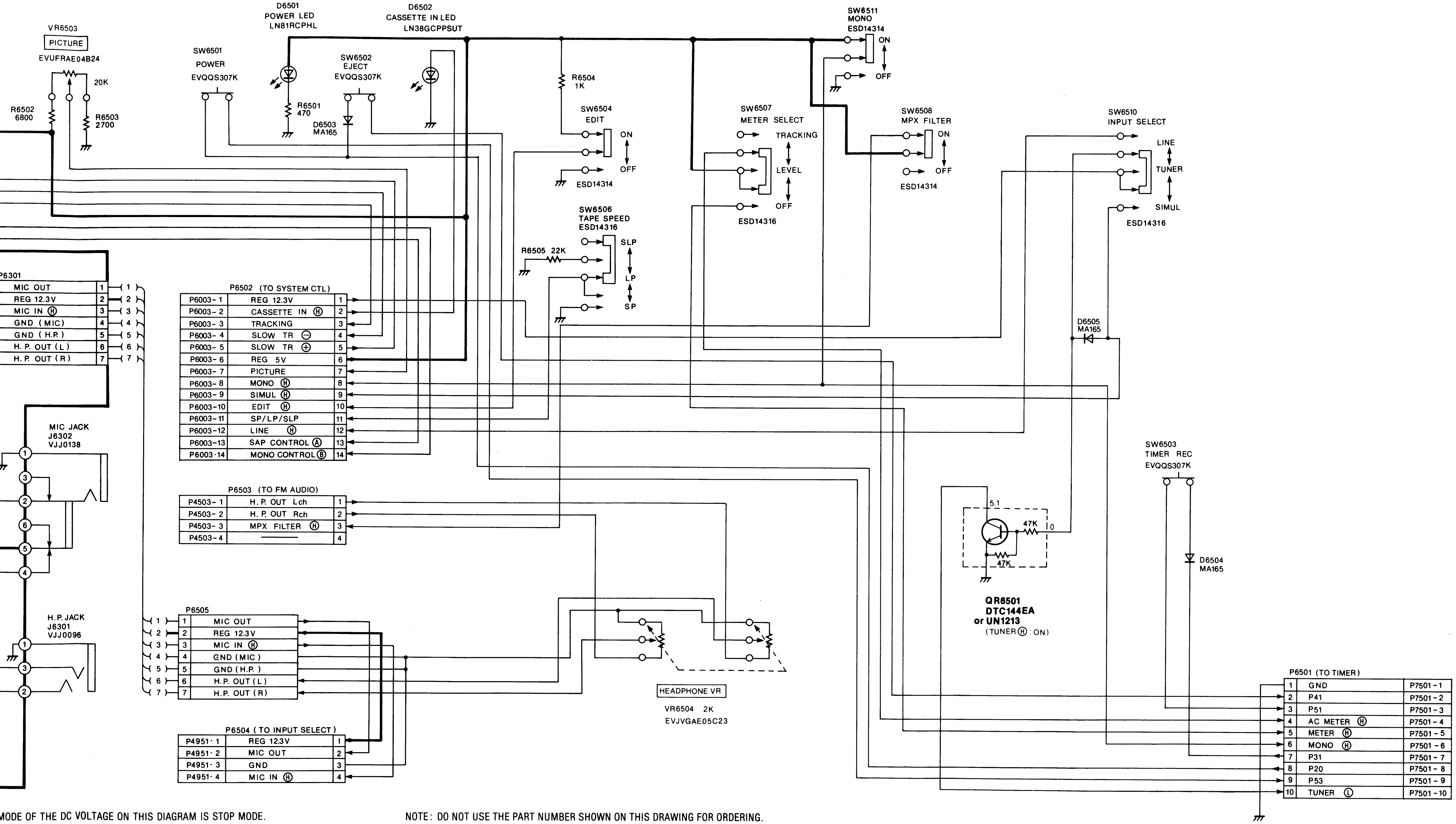

OTO TR (T) C.B.A.
(VEP00H34A)
FE HEAD C.B.A.
(VEP00H10A)
MAIN C.B.A. (VEP03448A)
CH SELECT SECTION
REF. NO. 7000 SERIES
AUDIO SECTION REF. NO. 4000 SERIES
ECTION C.B.A.
(VEP00H30A)
TO CASS. DOWN SW
TO MODE SW
LED C.B.A. UNIT (VXA2689)
SYSTEM CONTROL SECTION REF. NO. 6000 SERIES
CH SELECT PACK
DOUBLE SPEED PLAYBACK PACK
LUMINANCE & CHROMINANCE PACK
INPUT/OUTPUT PACK
SERVO PACK
TO SERVO PACK IC202-⑯
TO CHASSIS EARTH
SERVO SECTION REF. NO. 2000 SERIES
SYSTEM CONTROL SECTION REF. NO. 5000 SERIES
POWER SUPPLY SECTION REF. NO. 1000 SERIES
LUMINANCE & CHROMINANCE SECTION REF. NO. 3000 SERIES
TO INPUT/OUTPUT PACK C.B.A. VIDEO IN GND
HEAT SYNC
METER L
METER R
BIAS
PB GAIN
A.H.SW
SLOW FREE RUN
TR VR FIX
RG SHIFTER
TP GND
IC1
IC2
IC3
IC1501
2
3
4
5
6
7
8
9
10

OPERATION & JACK SCHEMATIC DIAGRAM


E
D
C
B
A
1
2
3
4
5
6
7
8
SW6509
MTS
VSS0162
SAP2
SAP1
MTS
VR6501
TRACKING
EVUFSAE04B15
100K
VR6502
SLOW TRACKING
EVUFSAE04B15
100K
VR6503
PICTURE
EVUFRAE04B24
20K
R6506
3900
R6502
6800
R6503
2700
SW6501
POWER
EVQQS307K
D6501
POWER LED
LN81RCPHL
R6501
470
SW6502
EJECT
EVQQS307K
D6503
MA165
D6502
CASSETTE IN LED
LN38GCPPSUT
R6504
1K
SW6504
EDIT
ON
OFF
ESD14314
SW6506
TAPE SPEED
ESD14316
SLP
LP
SP
R6505 22K
SW6507
METER SELECT
TRACKING
LEVEL
OFF
ESD14316
SW6511
MONO
ESD14314
ON
OFF
SW6508
MPX FILTER
ON
OFF
ESD14314
BA3308
MIC AMP LCH
MIC AMP RCH
MUTING
GAIN CTL
GAIN CTL
ALC
0.001μ
47K
68P
68
39K
47K
560K
47K
1.8
0
1.8
0
11.1
C6301
10V33
C6302
25V3.3
C6303
16V33
IC6301
VCR0172
BP6301
1 MIC OUT
2 REG 12.3V
3 MIC IN Ⓗ
4 GND (MIC)
5 GND (H.P.)
6 H.P. OUT (L)
7 H.P. OUT (R)
MIC JACK
J6302
VJJ0138
H.P. JACK
J6301
VJJ0096
JACK C.B.A. (VEP00H83A)
P6502 (TO SYSTEM CTL)
P6003-1 REG 12.3V 1
P6003-2 CASSETTE IN Ⓗ 2
P6003-3 TRACKING 3
P6003-4 SLOW TR ⊖ 4
P6003-5 SLOW TR ⊕ 5
P6003-6 REG 5V 6
P6003-7 PICTURE 7
P6003-8 MONO Ⓗ 8
P6003-9 SIMUL Ⓗ 9
P6003-10 EDIT Ⓗ 10
P6003-11 SP/LP/SLP 11
P6003-12 LINE Ⓗ 12
P6003-13 SAP CONTROL Ⓐ 13
P6003-14 MONO CONTROL Ⓑ 14
P6503 (TO FM AUDIO)
P4503-1 H.P. OUT Lch 1
P4503-2 H.P. OUT Rch 2
P4503-3 MPX FILTER Ⓗ 3
P4503-4 4
P6505
1 MIC OUT
2 REG 12.3V
3 MIC IN Ⓗ
4 GND (MIC)
5 GND (H.P.)
6 H.P. OUT (L)
7 H.P. OUT (R)
P6504 (TO INPUT SELECT)
P4951-1 REG 12.3V 1
P4951-2 MIC OUT 2
P4951-3 GND 3
P4951-4 MIC IN Ⓗ 4
HEADPHONE VR
VR6504 2K
EVJVGAE05C23
5.1
47K
QR6501
DTC144E
or UN1213
(TUNER Ⓗ

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

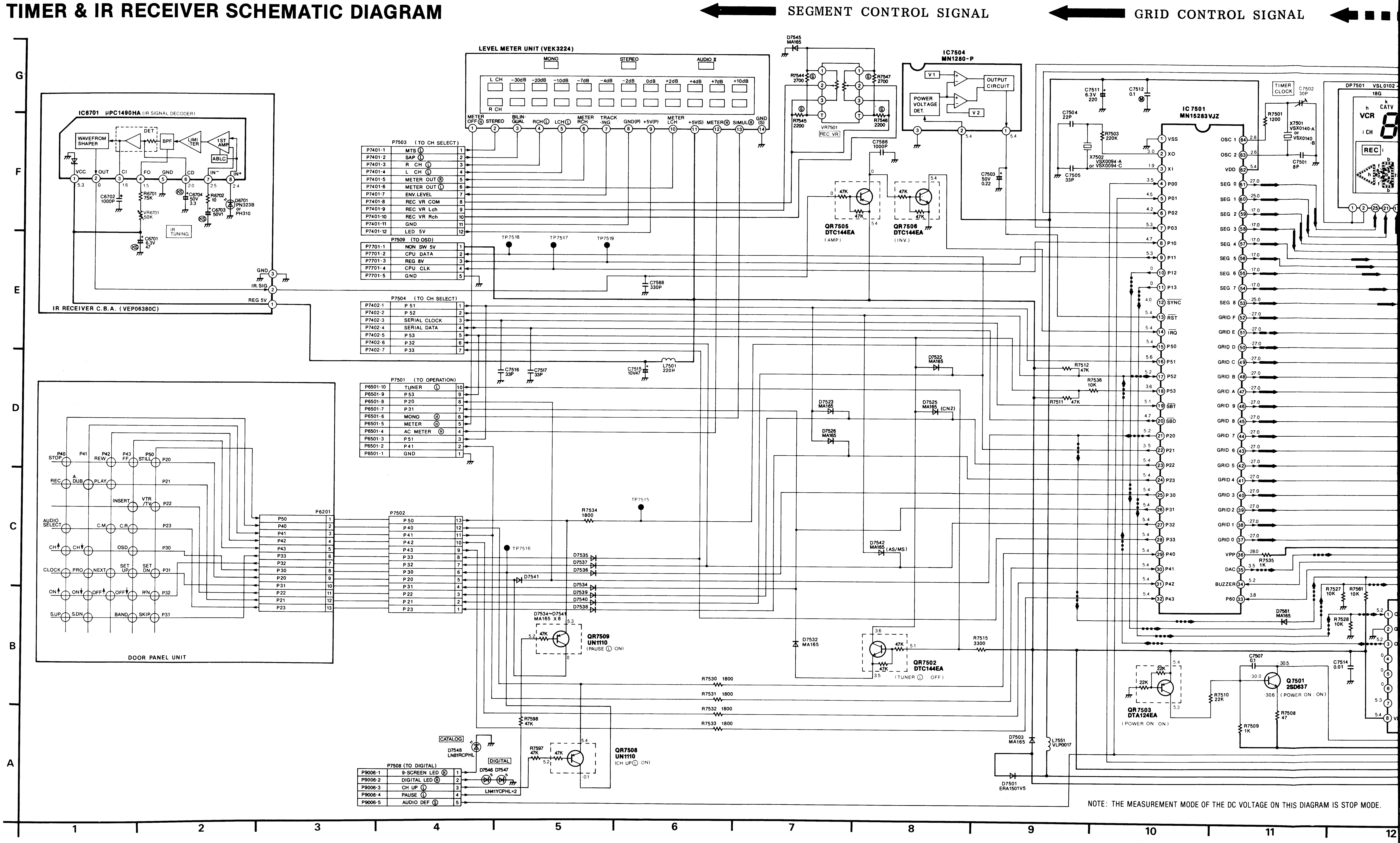

VR6503
PICTURE
EVUFRAE04B24
20K
R6502
6800
R6503
2700
SW6501
POWER
EVQQS307K
D6501
POWER LED
LN81RCPHL
R6501
470
SW6502
EJECT
EVQQS307K
D6503
MA165
D6502
CASSETTE IN LED
LN38GCPPSUT
R6504
1K
SW6504
EDIT
ON
OFF
ESD14314
SW6506
TAPE SPEED
ESD14316
R6505 22K
SLP
LP
SP
SW6507
METER SELECT
TRACKING
LEVEL
OFF
ESD14316
SW6511
MONO
ESD14314
ON
OFF
SW6508
MPX FILTER
ON
OFF
ESD14314
SW6510
INPUT SELECT
LINE
TUNER
SIMUL
ESD14316
D6505
MA165
P6301
1 MIC OUT
2 REG 12.3V
3 MIC IN Ⓗ
4 GND (MIC)
5 GND (H.P.)
6 H.P. OUT (L)
7 H.P. OUT (R)
P6502 (TO SYSTEM CTL)
P6003-1 REG 12.3V 1
P6003-2 CASSETTE IN Ⓗ 2
P6003-3 TRACKING 3
P6003-4 SLOW TR ⊖ 4
P6003-5 SLOW TR ⊕ 5
P6003-6 REG 5V 6
P6003-7 PICTURE 7
P6003-8 MONO Ⓗ 8
P6003-9 SIMUL Ⓗ 9
P6003-10 EDIT Ⓗ 10
P6003-11 SP/LP/SLP 11
P6003-12 LINE Ⓗ 12
P6003-13 SAP CONTROL Ⓐ 13
P6003-14 MONO CONTROL Ⓑ 14
MIC JACK
J6302
VJJ0138
P6503 (TO FM AUDIO)
P4503-1 H.P. OUT Lch 1
P4503-2 H.P. OUT Rch 2
P4503-3 MPX FILTER Ⓗ 3
P4503-4 ——— 4
H.P. JACK
J6301
VJJ0096
P6505
1 MIC OUT
2 REG 12.3V
3 MIC IN Ⓗ
4 GND (MIC)
5 GND (H.P.)
6 H.P. OUT (L)
7 H.P. OUT (R)
P6504 (TO INPUT SELECT)
P4951-1 REG 12.3V 1
P4951-2 MIC OUT 2
P4951-3 GND 3
P4951-4 MIC IN Ⓗ 4
HEADPHONE VR
VR6504 2K
EVJVGAE05C23
5.1
47K
0
47K
QR6501
DTC144EA
or UN1213
(TUNER Ⓗ : ON)
SW6503
TIMER REC
EVQQS307K
D6504
MA165
P6501 (TO TIMER)
1 GND P7501-1
2 P41 P7501-2
3 P51 P7501-3
4 AC METER Ⓗ P7501-4
5 METER Ⓗ P7501-5
6 MONO Ⓗ P7501-6
7 P31 P7501-7
8 P20 P7501-8
9 P53 P7501-9
10 TUNER Ⓛ P7501-10

MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

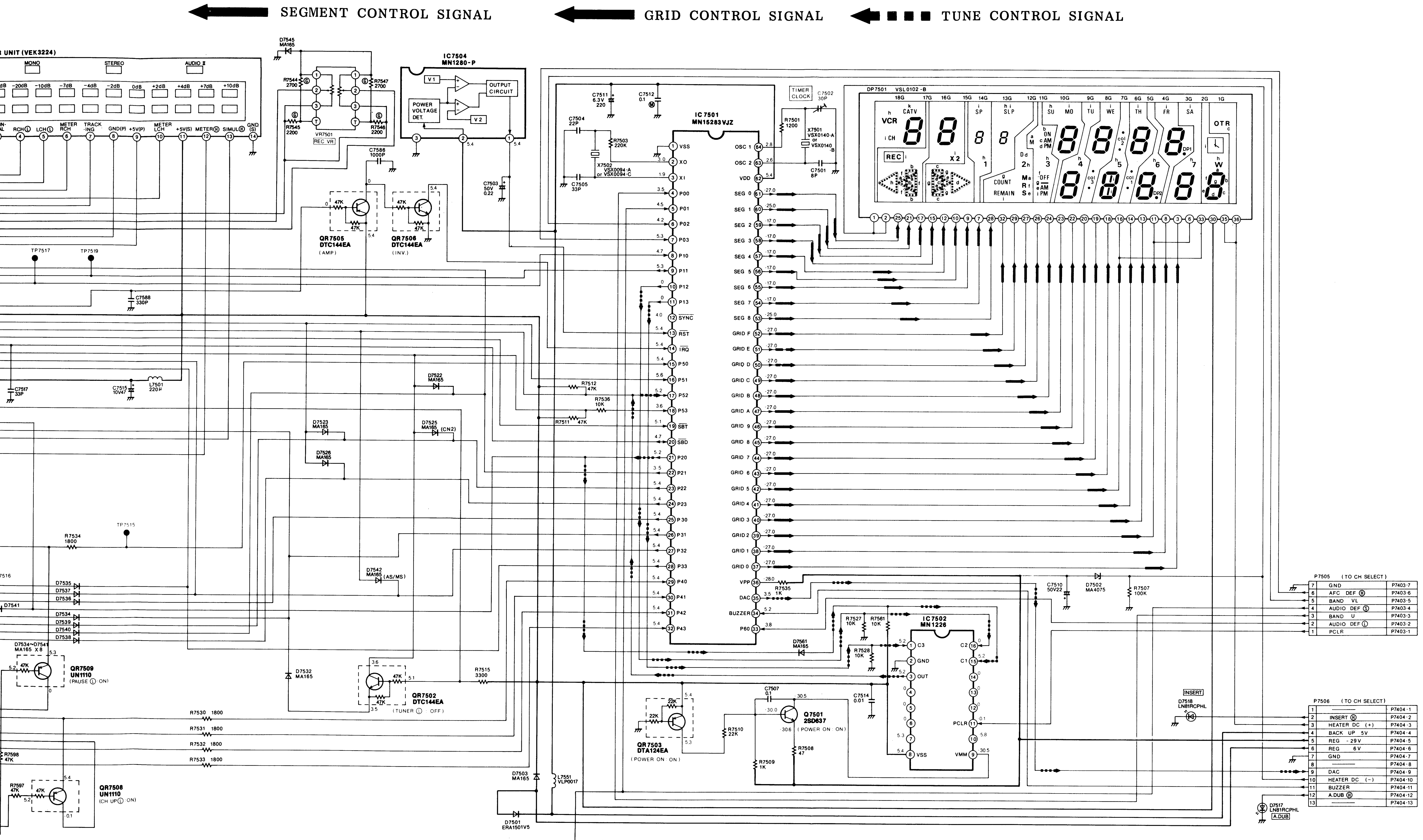
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

4 5 6 7 8 9 10 11

TIMER & IR RECEIVER SCHEMATIC DIAGRAM


SEGMENT CONTROL SIGNAL
GRID CONTROL SIGNAL
LEVEL METER UNIT (VEK3224)
MONO
STEREO
AUDIO Ⅱ
L CH
R CH
IC6701 μPC1490HA (IR SIGNAL DECODER)
WAVEFROM SHAPER
DET
BPF
LIMI-TER
1ST AMP
ABLC
IR TUNING
IR RECEIVER C.B.A. (VEP06380C)
P7503 (TO CH SELECT)
P7509 (TO OSD)
P7504 (TO CH SELECT)
P7501 (TO OPERATION)
P7502
P6201
P7508 (TO DIGITAL)
DOOR PANEL UNIT
IC7504 MN1280-P
POWER VOLTAGE DET.
OUTPUT CIRCUIT
IC7501 MN15283VJZ
QR7505 DTC144EA (AMP)
QR7506 DTC144EA (INV.)
QR7509 UN1110 (PAUSE Ⓛ ON)
QR7502 DTC144EA (TUNER Ⓛ : OFF)
QR7508 UN1110 (CH UP Ⓛ : ON)
QR7503 DTA124EA (POWER ON : ON)
Q7501 2SD637 (POWER ON : ON)
TIMER CLOCK
DP7501 VSL0102
VCR
CATV
REC
CATALOG
DIGITAL
D7548 LN81RCPHL
LN41YCPHL×2
X7501 VSX0140-A or VSX0140-B
X7502 VSX0094-A or VSX0094-C
L7501 220μ
L7551 VLP0017
D7501 ERA1501V5
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.


SEGMENT CONTROL SIGNAL
GRID CONTROL SIGNAL
TUNE CONTROL SIGNAL
UNIT (VEK3224)
MONO
STEREO
AUDIO Ⅱ
IC7504
MN1280-P
POWER VOLTAGE DET.
OUTPUT CIRCUIT
IC7501
MN15283VJZ
VSS
XO
XI
OSC 1
OSC 2
VDD
SEG 0
SEG 1
SEG 2
SEG 3
SEG 4
SEG 5
SEG 6
SEG 7
SEG 8
GRID F
GRID E
GRID D
GRID C
GRID B
GRID A
GRID 9
GRID 8
GRID 7
GRID 6
GRID 5
GRID 4
GRID 3
GRID 2
GRID 1
GRID 0
VPP
DAC
BUZZER
P60
SYNC
RST
IRQ
SBT
SBD
DP7501 VSL0102-B
VCR
CATV
REC
COUNT
REMAIN
OTR
TIMER CLOCK
IC7502
MN1226
C3
GND
OUT
PCLR
VMM
QR7505
DTC144EA
(AMP)
QR7506
DTC144EA
(INV.)
QR7509
UN1110
(PAUSE Ⓛ ON)
QR7508
UN1110
(CH UPⓁ ON)
QR7502
DTC144EA
(TUNER Ⓛ OFF)
QR7503
DTA124EA
(POWER ON : ON)
Q7501
2SD637
(POWER ON : ON)
VR7501
REC VR
INSERT
D7518
LN81RCPHL
D7517
LN81RCPHL
A.DUB
P7505 (TO CH SELECT)
1 PCLR P7403-1
2 AUDIO DEF Ⓛ P7403-2
3 BAND U P7403-3
4 AUDIO DEF Ⓢ P7403-4
5 BAND VL P7403-5
6 AFC DEF Ⓗ P7403-6
7 GND P7403-7
P7506 (TO CH SELECT)
1 P7404-1
2 INSERT Ⓗ P7404-2
3 HEATER DC (+) P7404-3
4 BACK UP 5V P7404-4
5 REG -29V P7404-5
6 REG 6V P7404-6
7 GND P7404-7
8 P7404-8
9 DAC P7404-9
10 HEATER DC (-) P7404-10
11 BUZZER P7404-11
12 A.DUB Ⓗ P7404-12
13 P7404-13
TP7517
TP7519
TP7515

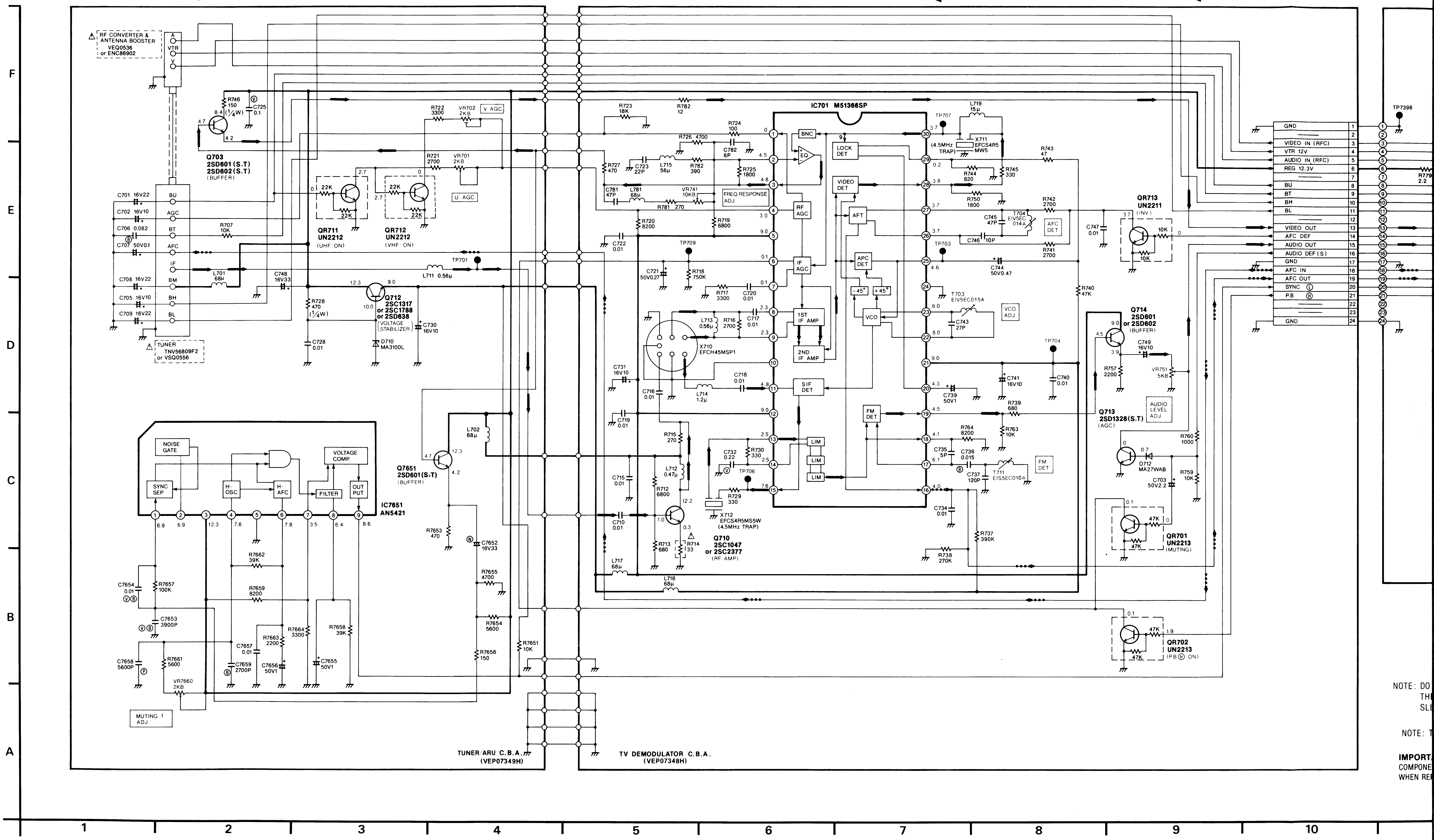
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED

5 6 7 8 9 10 11 12 13 14 15 16

TV DEMODULATOR, TUNER/ARU & TV DEMODULATOR INTERFACE SCHEMATIC DIAGRAM

VIDEO SIGNAL PATH
AUDIO SIGNAL PATH

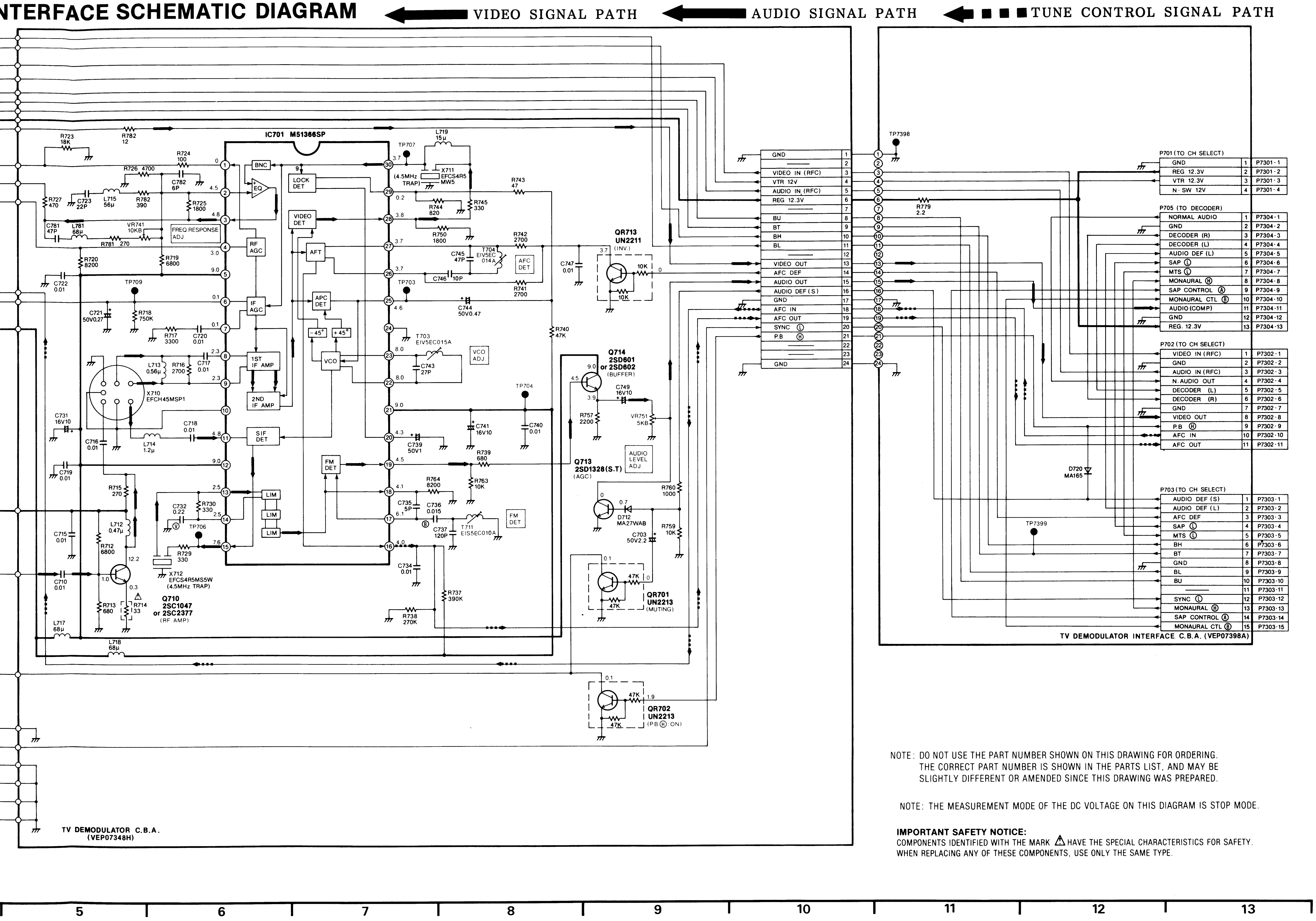

F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
RF CONVERTER & ANTENNA BOOSTER VEQ0536 or ENC86902
A
VTR
V
R746 150 (1/4W)
C725 0.1
Q703 2SD601(S.T) 2SD602(S.T) (BUFFER)
R722 3300
VR702 2KB
V. AGC
R721 2700
VR701 2KB
U. AGC
QR711 UN2212 (UHF: ON)
QR712 UN2212 (VHF: ON)
22K
C701 16V22
C702 16V10
C706 0.082
C707 50V0.1
C708 16V22
C705 16V10
C709 16V22
BU
AGC
BT
AFC
IF
BM
BH
BL
R707 10K
L701 68μ
C748 16V33
L711 0.56μ
TP701
Q712 2SC1317 or 2SC1788 or 2SD638
R728 470 (1/4W)
C728 0.01
(VOLTAGE STABILIZER)
C730 16V10
D710 MA3100L
TUNER TNV56809F2 or VSQ0556
NOISE GATE
SYNC SEP
H-OSC
H-AFC
VOLTAGE COMP.
FILTER
OUT PUT
IC7651 AN5421
Q7651 2SD601(S.T) (BUFFER)
L702 68μ
R7653 470
C7652 16V33
R7655 4700
R7654 5600
R7656 150
R7651 10K
C7654 0.01
R7657 100K
C7653 3900P
R7662 39K
R7659 8200
R7664 3300
R7658 39K
R7663 2200
C7657 0.01
C7659 2700P
C7656 50V1
C7655 50V1
C7658 5600P
R7661 5600
VR7660 2KB
MUTING f ADJ.
TUNER/ARU C.B.A. (VEP07349H)
TV DEMODULATOR C.B.A. (VEP07348H)
IC701 M51366SP
R723 18K
R782 12
R724 100
R726 4700
C782 6P
R727 470
C723 22P
L715 56μ
R782 390
R725 1800
C781 47P
L781 68μ
VR741 10KB
R781 270
FREQ RESPONSE ADJ
R720 8200
R719 6800
C722 0.01
TP709
C721 50V0.27
R718 750K
R717 3300
C720 0.01
L713 0.56μ
R716 2700
C717 0.01
X710 EFCH45MSP1
C731 16V10
C718 0.01
C716 0.01
L714 1.2μ
C719 0.01
R715 270
C732 0.22
R730 330
TP706
L712 0.47μ
R712 6800
R729 330
X712 EFCS4R5MS5W (4.5MHz TRAP)
C715 0.01
C710 0.01
Q710 2SC1047 or 2SC2377 (RF AMP)
R713 680
R714 33
L717 68μ
L718 68μ
BNC
EQ
LOCK DET
VIDEO DET
RF AGC
IF AGC
1ST IF AMP
2ND IF AMP
SIF DET
LIM
AFT
APC DET
-45°
+45°
VCO
FM DET
TP707
L719 15μ
X711 EFCS4R5 MW5
(4.5MHz TRAP)
R744 820
R745 330
R743 47
R750 1800
R742 2700
C745 47P
T704 EIV5EC 014A
AFC DET
C746 10P
R741 2700
TP703
C744 50V0.47
T703 EIV5EC015A
VCO ADJ
C743 27P
R740 47K
TP704
C741 16V10
C740 0.01
C739 50V1
R739 680
R764 8200
R763 10K
C735 5P
C736 0.015
C737 120P
T711 EIS5EC010A
FM DET
C734 0.01
R737 390K
R738 270K
C747 0.01
QR713 UN2211 (INV)
10K
Q714 2SD601 or 2SD602 (BUFFER)
C749 16V10
R757 2200
VR751 5KB
AUDIO LEVEL ADJ
Q713 2SD1328(S.T) (AGC)
R760 1000
D712 MA27WAB
R759 10K
C703 50V2.2
QR701 UN2213 (MUTING)
47K
QR702 UN2213 (PB Ⓗ ON)
TP7398
R779 2.2
GND
VIDEO IN (RFC)
VTR 12V
AUDIO IN (RFC)
REG 12.3V
BU
BT
BH
BL
VIDEO OUT
AFC DEF
AUDIO OUT
AUDIO DEF (S)
GND
AFC IN
AFC OUT
SYNC Ⓛ
P.B Ⓗ
GND

NOTE: DO
TH
SL

NOTE: T

IMPORT
COMPONE
WHEN REF

NTERFACE SCHEMATIC DIAGRAM


VIDEO SIGNAL PATH
AUDIO SIGNAL PATH
TUNE CONTROL SIGNAL PATH
IC701 M51366SP
BNC
EQ
LOCK DET
VIDEO DET
FREQ RESPONSE ADJ
RF AGC
AFT
APC DET
-45°
+45°
VCO
IF AGC
1ST IF AMP
2ND IF AMP
SIF DET
FM DET
LIM
VCO ADJ
AFC DET
FM DET
AUDIO LEVEL ADJ
TP701
TP703
TP704
TP706
TP707
TP709
TP7398
TP7399
X710 EFCH45MSP1
X711 EFCS4R5MW5 (4.5MHz TRAP)
X712 EFCS4R5MS5W (4.5MHz TRAP)
T703 EIV5EC015A
T704 EIV5EC014A
T711 EIS5EC010A
L719 15µ
Q710 2SC1047 or 2SC2377 (RF AMP)
Q713 2SD1328(S.T) (AGC)
Q714 2SD601 or 2SD602 (BUFFER)
QR713 UN2211 (INV.)
QR701 UN2213 (MUTING)
QR702 UN2213 (PB Ⓗ ON)
D712 MA27WAB
D720 MA165
VR741 10KB
VR751 5KB
TV DEMODULATOR C.B.A. (VEP07348H)
TV DEMODULATOR INTERFACE C.B.A. (VEP07398A)
1 GND
2 —
3 VIDEO IN (RFC)
4 VTR 12V
5 AUDIO IN (RFC)
6 REG 12.3V
7 —
8 BU
9 BT
10 BH
11 BL
12 —
13 VIDEO OUT
14 AFC DEF
15 AUDIO OUT
16 AUDIO DEF (S)
17 GND
18 AFC IN
19 AFC OUT
20 SYNC Ⓛ
21 P.B Ⓗ
22 —
23 —
24 GND
P701 (TO CH SELECT)
GND P7301-1
REG 12.3V P7301-2
VTR 12.3V P7301-3
N-SW 12V P7301-4
P705 (TO DECODER)
NORMAL AUDIO P7304-1
GND P7304-2
DECODER (R) P7304-3
DECODER (L) P7304-4
AUDIO DEF (L) P7304-5
SAP Ⓛ P7304-6
MTS Ⓛ P7304-7
MONAURAL Ⓗ P7304-8
SAP CONTROL Ⓐ P7304-9
MONAURAL CTL Ⓑ P7304-10
AUDIO (COMP) P7304-11
GND P7304-12
REG. 12.3V P7304-13
P702 (TO CH SELECT)
VIDEO IN (RFC) P7302-1
GND P7302-2
AUDIO IN (RFC) P7302-3
N. AUDIO OUT P7302-4
DECODER (L) P7302-5
DECODER (R) P7302-6
GND P7302-7
VIDEO OUT P7302-8
P.B Ⓗ P7302-9
AFC IN P7302-10
AFC OUT P7302-11
P703 (TO CH SELECT)
AUDIO DEF (S) P7303-1
AUDIO DEF (L) P7303-2
AFC DEF P7303-3
SAP Ⓛ P7303-4
MTS Ⓛ P7303-5
BH P7303-6
BT P7303-7
GND P7303-8
BL P7303-9
BU P7303-10
— P7303-11
SYNC Ⓛ P7303-12
MONAURAL Ⓗ P7303-13
SAP CONTROL Ⓐ P7303-14
MONAURAL CTL Ⓑ P7303-15
5
6
7
8
9
10
11
12
13

TV DEMODULATOR, TUNER/ARU & TV DEMODULATOR INTERFACE C.B.A.	
Transistor	
Q703	B-5
Q710	A-4
Q712	A-5
Q713	A-3
Q714	A-4
Q7651	B-5
Transistor & Resistor	
QR701	A-3
QR702	A-3
QR711	C-5
QR712	A-5
QR713	B-3
Integrated Circuit	
IC701	B-4
IC7651	A-5
Test Point	
TP701	B-5
TP703	B-3
TP704	B-3
TP706	A-4
TP707	B-3
TP709	B-4
TP7398	C-2
TP7399	C-2
Adjustment	
VR701	A-5
VR702	A-5
VR741	B-4
VR751	A-3
VR7660	A-5
T703	B-3
T704	B-3
T711	A-3

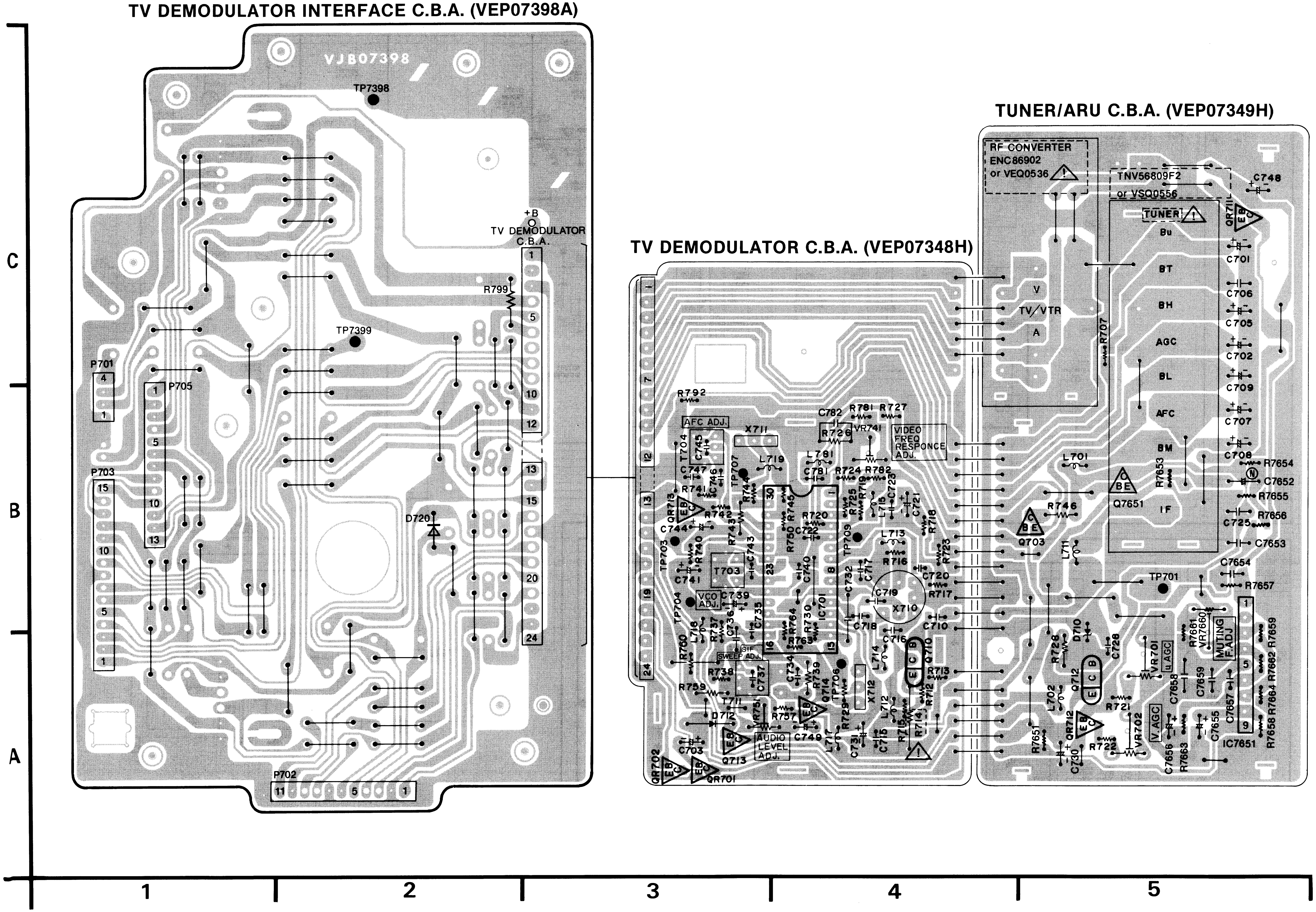
ADDRESS INFORMATION

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE
SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

TV DEMODULATOR C.B.A. (VEP07348H), TUNER/ARU C.B.A. (VEP07349H) & TV DEMODULATOR INTERFACE C.B.A. (VEP07398A)

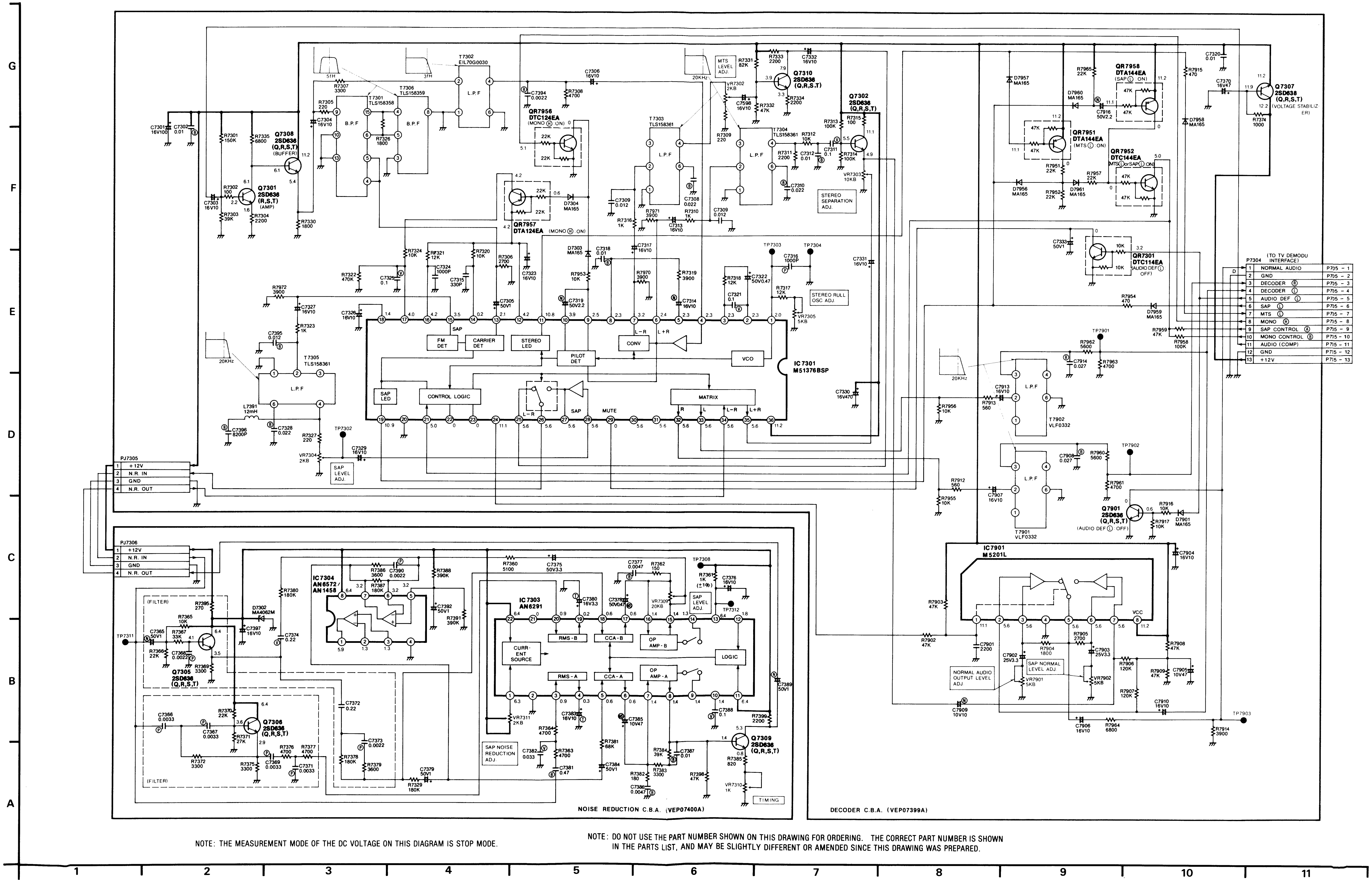

TV DEMODULATOR INTERFACE C.B.A. (VEP07398A)

TV DEMODULATOR C.B.A. (VEP07348H)

TUNER/ARU C.B.A. (VEP07349H)

VJB07398
TP7398
TP7399
+B
TV DEMODULATOR C.B.A.
R799
D720
P701
P705
P703
P702
RF CONVERTER
ENC86902
or VEQ0536
TNV56809F2
or VSQ0556
TUNER
Bu
BT
BH
AGC
BL
AFC
BM
IF
V
TV/VTR
A
R707
C748
QR711
C701
C706
C705
C702
C709
C707
C708
R7654
C7652
R7655
R7656
C725
C7653
C7654
R7657
R7653
Q7651
Q703
L701
R746
L711
TP701
R792
AFC ADJ.
T704
C745
X711
C782
R781
R727
R726
VR741
VIDEO FREQ RESPONCE ADJ.
L719
L781
C781
R724
R782
C747
C746
R741
TP707
R744
R745
R719
R725
L715
C723
C721
QR713
R742
R720
C722
R718
C744
R743
R750
TP709
L713
TP703
R740
C743
R716
R723
C741
T703
C740
C732
C717
C720
VCO ADJ.
C739
R717
TP704
C735
C736
R764
R730
IC701
C719
X710
L716
R737
C718
C710
R760
R763
SIF SWEEP ADJ.
C716
Q710
R738
C737
C734
R739
L714
R713
R759
Q714
TP706
X712
R712
T711
R751
R757
L712
R714
R715
D712
C749
L717
R729
C731
C715
AUDIO LEVEL ADJ.
C703
Q713
QR702
QR701
R728
D710
C728
VR701
u AGC
R7661
VR7660
MUTING F.ADJ
R7659
Q712
R721
C7658
C7659
R7662
R7664
L702
QR712
VR702
V AGC
R722
C7657
C7655
R7651
C730
C7656
R7663
IC7651
R7658
1
2
3
4
5
A
B
C

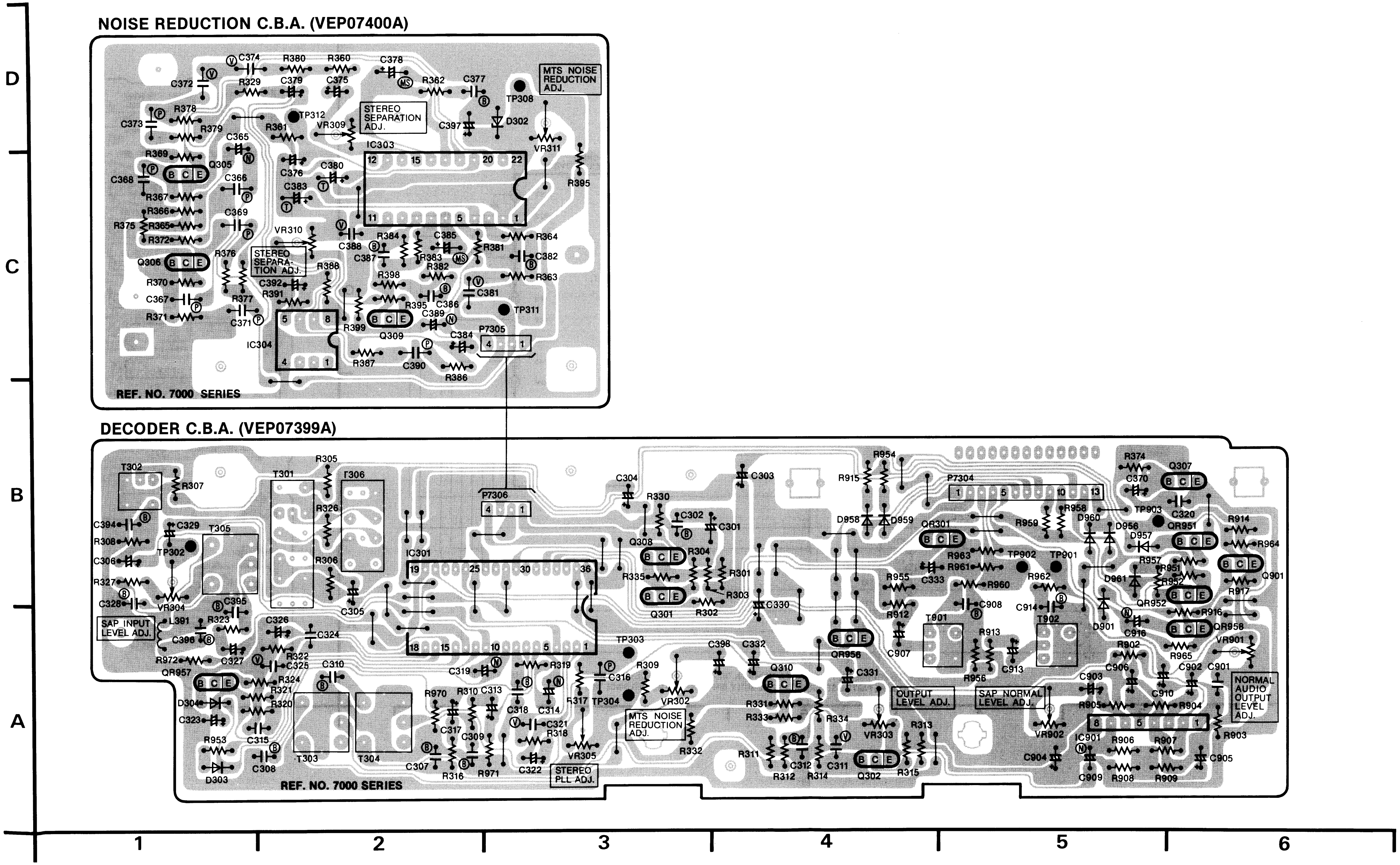
DECODER & NOISE REDUCTION SCHEMATIC DIAGRAM


G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
IC7301
M51376BSP
IC7303
AN6291
IC7304
AN6572/
AN1458
IC7901
M5201L
Q7301
2SD636
(R,S,T)
(AMP)
Q7302
2SD636
(Q,R,S,T)
Q7305
2SD636
(Q,R,S,T)
Q7306
2SD636
(Q,R,S,T)
Q7307
2SD638
(Q,R,S,T)
(VOLTAGE STABILIZER)
Q7308
2SD636
(Q,R,S,T)
(BUFFER)
Q7309
2SD636
(Q,R,S,T)
Q7310
2SD636
(Q,R,S,T)
Q7901
2SD636
(Q,R,S,T)
(AUDIO DEF Ⓛ OFF)
QR7956
DTC124EA
(MONO Ⓗ ON)
QR7957
DTA124EA
(MONO Ⓗ ON)
QR7958
DTA144EA
(SAP Ⓛ ON)
QR7951
DTA144EA
(MTS Ⓛ ON)
QR7952
DTC144EA
(MTSⓁ or SAPⓁ ON)
QR7301
DTC114EA
(AUDIO DEF Ⓛ OFF)
T7301
TLS158358
T7302
EIL70G0030
T7303
TLS158361
T7304
TLS158361
T7305
TLS158361
T7306
TLS158359
T7901
VLF0332
T7902
VLF0332
B.P.F
L.P.F
5fH
3fH
20KHz
FM DET
CARRIER DET
STEREO LED
PILOT DET
CONV
VCO
SAP LED
CONTROL LOGIC
MATRIX
L−R
L+R
SAP
MUTE
CURRENT SOURCE
RMS-A
RMS-B
CCA-A
CCA-B
OP AMP-A
OP AMP-B
LOGIC
VCC
MTS LEVEL ADJ.
STEREO SEPARATION ADJ.
STEREO PULL OSC ADJ.
SAP LEVEL ADJ.
SAP NOISE REDUCTION ADJ
SAP NORMAL LEVEL ADJ
NORMAL AUDIO OUTPUT LEVEL ADJ
TIMING
(FILTER)
TP7302
TP7303
TP7304
TP7308
TP7311
TP7312
TP7901
TP7902
TP7903
PJ7305
1 +12V
2 N.R. IN
3 GND
4 N.R. OUT
PJ7306
1 +12V
2 N.R. IN
3 GND
4 N.R. OUT
P7304 (TO TV DEMODU INTERFACE)
1 NORMAL AUDIO P7J5 - 1
2 GND P7J5 - 2
3 DECODER Ⓗ P7J5 - 3
4 DECODER Ⓛ P7J5 - 4
5 AUDIO DEF Ⓛ P7J5 - 5
6 SAP Ⓛ P7J5 - 6
7 MTS Ⓛ P7J5 - 7
8 MONO Ⓗ P7J5 - 8
9 SAP CONTROL Ⓗ P7J5 - 9
10 MONO CONTROL Ⓗ P7J5 - 10
11 AUDIO (COMP) P7J5 - 11
12 GND P7J5 - 12
13 +12V P7J5 - 13
NOISE REDUCTION C.B.A. (VEP07400A)
DECODER C.B.A. (VEP07399A)

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DECODER C.B.A. (VEP07399A) & NOISE REDUCTION C.B.A. (VEP07400A)

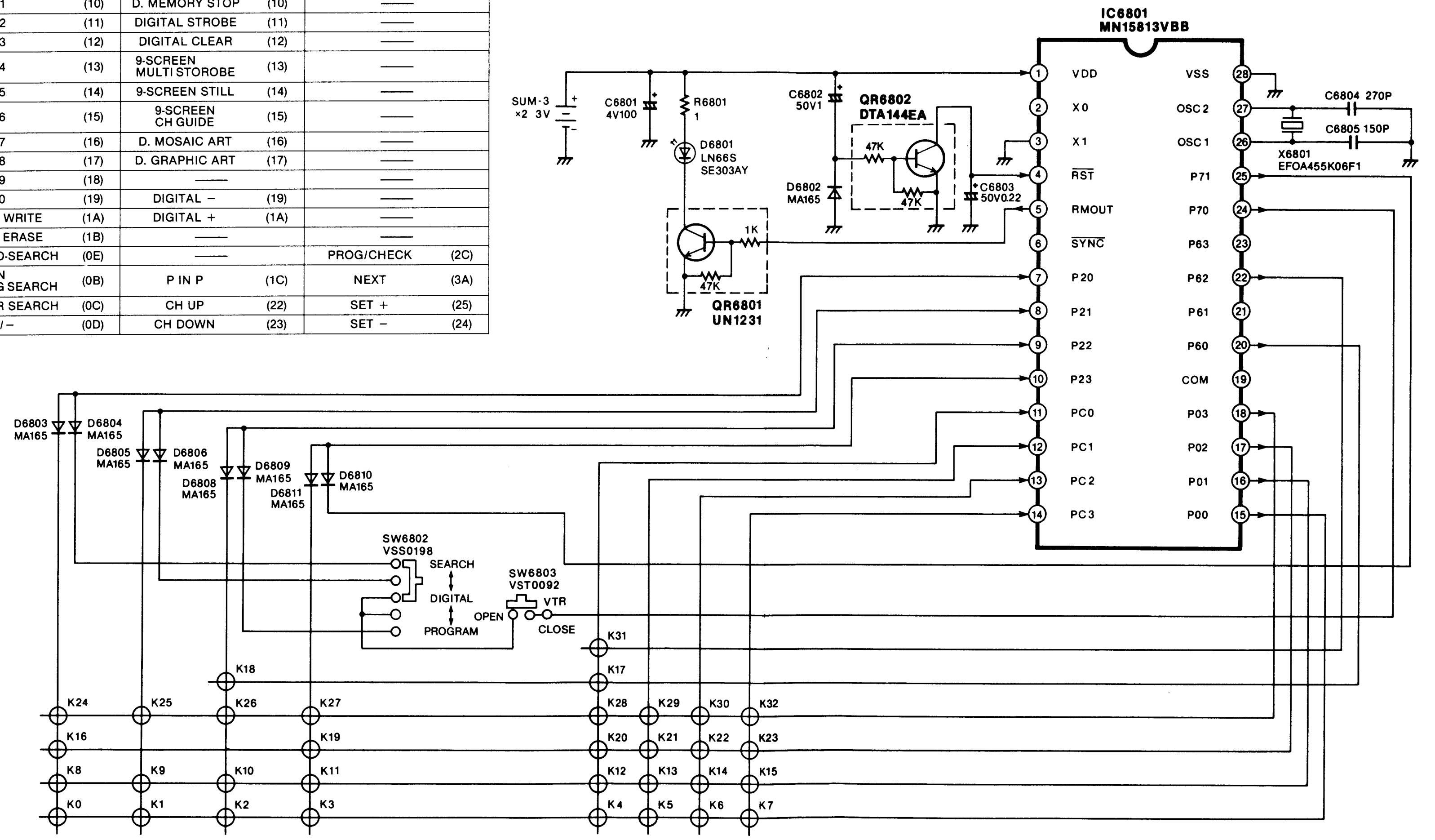

NOISE REDUCTION C.B.A. (VEP07400A)
DECODER C.B.A. (VEP07399A)
MTS NOISE REDUCTION ADJ.
STEREO SEPARATION ADJ.
STEREO SEPARA-TION ADJ.
SAP INPUT LEVEL ADJ.
MTS NOISE REDUCTION ADJ.
STEREO PLL ADJ.
OUTPUT LEVEL ADJ.
SAP NORMAL LEVEL ADJ.
NORMAL AUDIO OUTPUT LEVEL ADJ.
REF. NO. 7000 SERIES
REF. NO. 7000 SERIES
IC303
IC304
IC301
IC901
P7305
P7306
P7304
T301
T302
T303
T304
T305
T306
T901
T902
TP308
TP311
TP312
TP302
TP303
TP304
TP901
TP902
TP903
VR309
VR310
VR311
VR302
VR303
VR304
VR305
VR901
VR902
D
C
B
A
1
2
3
4
5
6

DECODER & NOISE REDUCTION C.B.A.	
Transistor	
Q7301	A-3
Q7302	A-4
Q7305	C-1
Q7306	C-1
Q7307	B-6
Q7308	B-3
Q7309	C-2
Q7310	A-4
Q7901	B-6
Transistor & Resistor	
QR7301	B-5
QR7951	B-6
QR7952	A-5
QR7956	A-4
QR7957	A-1
QR7958	A-6
Integrated Circuit	
IC7301	B-2
IC7303	D-2
IC7304	C-2
IC7901	A-5
Test Point	
TP7302	B-1
TP7303	A-3
TP7304	A-3
TP7308	D-3
TP7311	C-3
TP7312	D-2
TP7901	B-5
TP7902	B-5
TP7903	B-5
Adjustment	
VR7302	A-3
VR7303	A-4
VR7304	B-1
VR7305	A-3
VR7309	D-2
VR7310	C-2
VR7311	D-3
VR7901	A-6
VR7902	A-5

ADDRESS INFORMATION

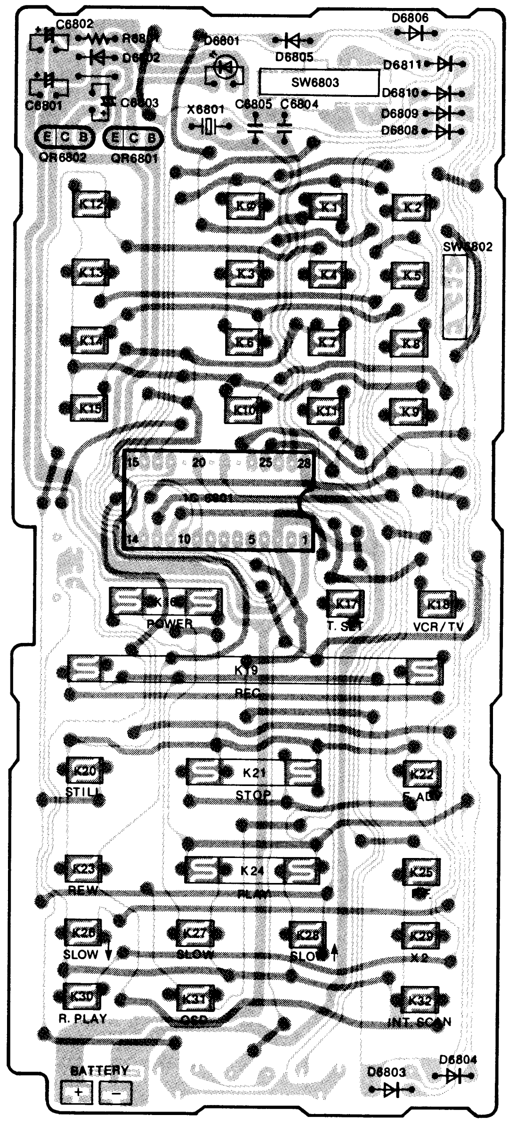
PROGRAMMABLE REMOTE CONTROLLER SCHEMATIC DIAGRAM
— UNIT NO.: VEQ0563 —

KEY NO. \ CUSTOM CODE	VTR MODE	(DATA CODE)	SEARCH MODE	(DATA CODE)	DIGITAL MODE	(DATA CODE)	PROGRAM MODE	(DATA CODE)
	"02"		"03"		"19"		"03"	
K0	VTR CH 1	(10)	1	(10)	D. MEMORY STOP	(10)	——	
K1	VTR CH 2	(11)	2	(11)	DIGITAL STROBE	(11)	——	
K2	VTR CH 3	(12)	3	(12)	DIGITAL CLEAR	(12)	——	
K3	VTR CH 4	(13)	4	(13)	9-SCREEN MULTI STOROBE	(13)	——	
K4	VTR CH 5	(14)	5	(14)	9-SCREEN STILL	(14)	——	
K5	VTR CH 6	(15)	6	(15)	9-SCREEN CH GUIDE	(15)	——	
K6	VTR CH 7	(16)	7	(16)	D. MOSAIC ART	(16)	——	
K7	VTR CH 8	(17)	8	(17)	D. GRAPHIC ART	(17)	——	
K8	VTR CH 9	(18)	9	(18)	——		——	
K9	VTR CH 10	(19)	0	(19)	DIGITAL −	(19)	——	
K10	CH DOWN	(23)	INDEX WRITE	(1A)	DIGITAL +	(1A)	——	
K11	CH UP	(22)	INDEX ERASE	(1B)	——		——	
K12	AUDIO SELECT	(3D)	INDEX-NO-SEARCH	(0E)	——		PROG/CHECK	(2C)
K13	MEMORY	(32)	9-SCREEN CATALOG SEARCH	(0B)	P IN P	(1C)	NEXT	(3A)
K14	RESET	(33)	COUNTER SEARCH	(0C)	CH UP	(22)	SET +	(25)
K15	CHANGE DISPLAY	(35)	+/−	(0D)	CH DOWN	(23)	SET −	(24)
K16	POWER	(20)						
K17	T•SET	(3G)						
K18	VTR/TV	(3A)						
K19	REC	(08)						
K20	STILL	(06)						
K21	STOP	(00)						
K22	FRAME ADV	(0C)						
K23	REW	(02)						
K24	PLAY	(0A)						
K25	FF	(03)						
K26	SLOW ↓	(2F)						
K27	SLOW	(0F)						
K28	SLOW ↑	(2E)						
K29	X2	(0E)						
K30	R-PLAY	(0D)						
K31	OSD	(3D)						
K32	INT. SEARCH	(34)						

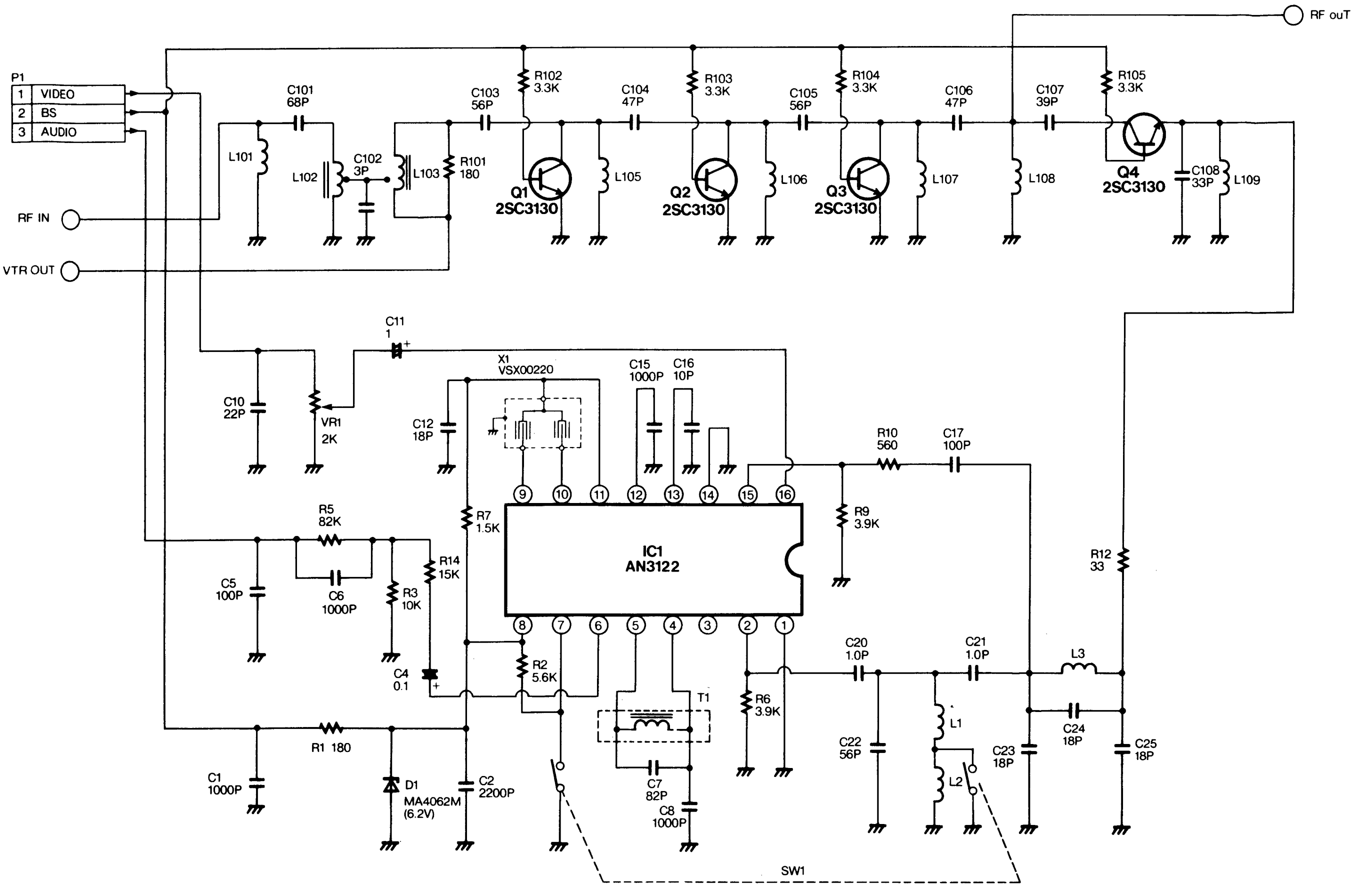

IC6801
MN15813VBB
VDD
X0
X1
RST
RMOUT
SYNC
P20
P21
P22
P23
PC0
PC1
PC2
PC3
VSS
OSC2
OSC1
P71
P70
P63
P62
P61
P60
COM
P03
P02
P01
P00
SUM-3 ×2 3V
C6801 4V100
R6801 1
D6801 LN66S SE303AY
C6802 50V1
QR6802 DTA144EA
47K
D6802 MA165
C6803 50V0.22
QR6801 UN1231
1K
C6804 270P
C6805 150P
X6801 EFOA455K06F1
D6803 MA165
D6804 MA165
D6805 MA165
D6806 MA165
D6808 MA165
D6809 MA165
D6810 MA165
D6811 MA165
SW6802 VSS0198
SEARCH
DIGITAL
PROGRAM
SW6803 VST0092
VTR
OPEN
CLOSE
K0
K1
K2
K3
K4
K5
K6
K7
K8
K9
K10
K11
K12
K13
K14
K15
K16
K17
K18
K19
K20
K21
K22
K23
K24
K25
K26
K27
K28
K29
K30
K31
K32

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

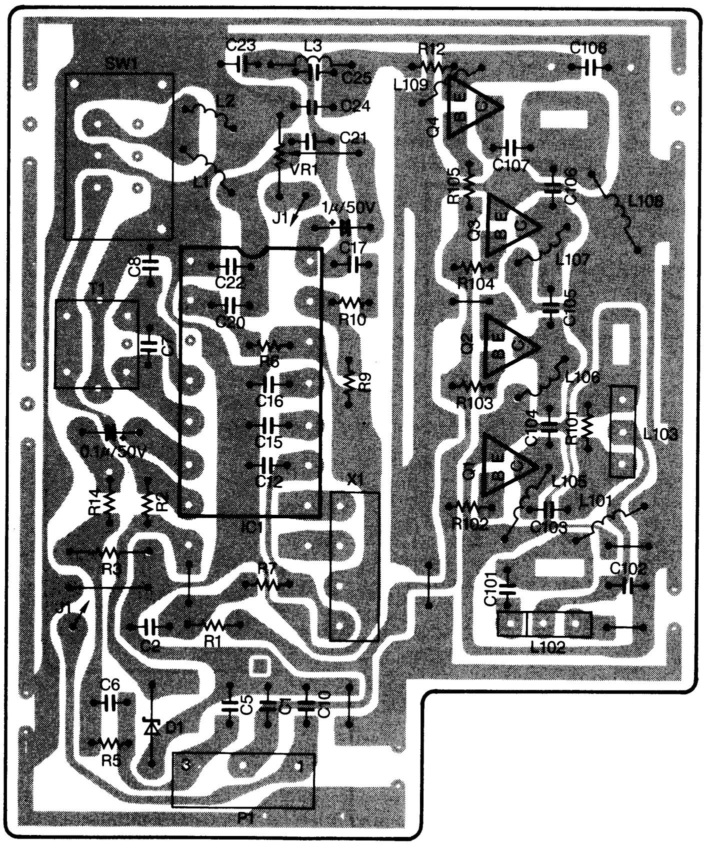
PROGRAMMABLE REMOTE CONTROLLER C.B.A. (VEP66018A)


C6802
R6801
D6802
C6801
C6803
QR6802
QR6801
D6801
D6805
SW6803
X6801
C6805
C6804
D6806
D6811
D6810
D6809
D6808
SW6802
IC6801
POWER
T.SET
VCR/TV
REC
STILL
STOP
F.ADV
REW
PLAY
SLOW
X2
R.PLAY
OSD
INT.SCAN
BATTERY
D6803
D6804

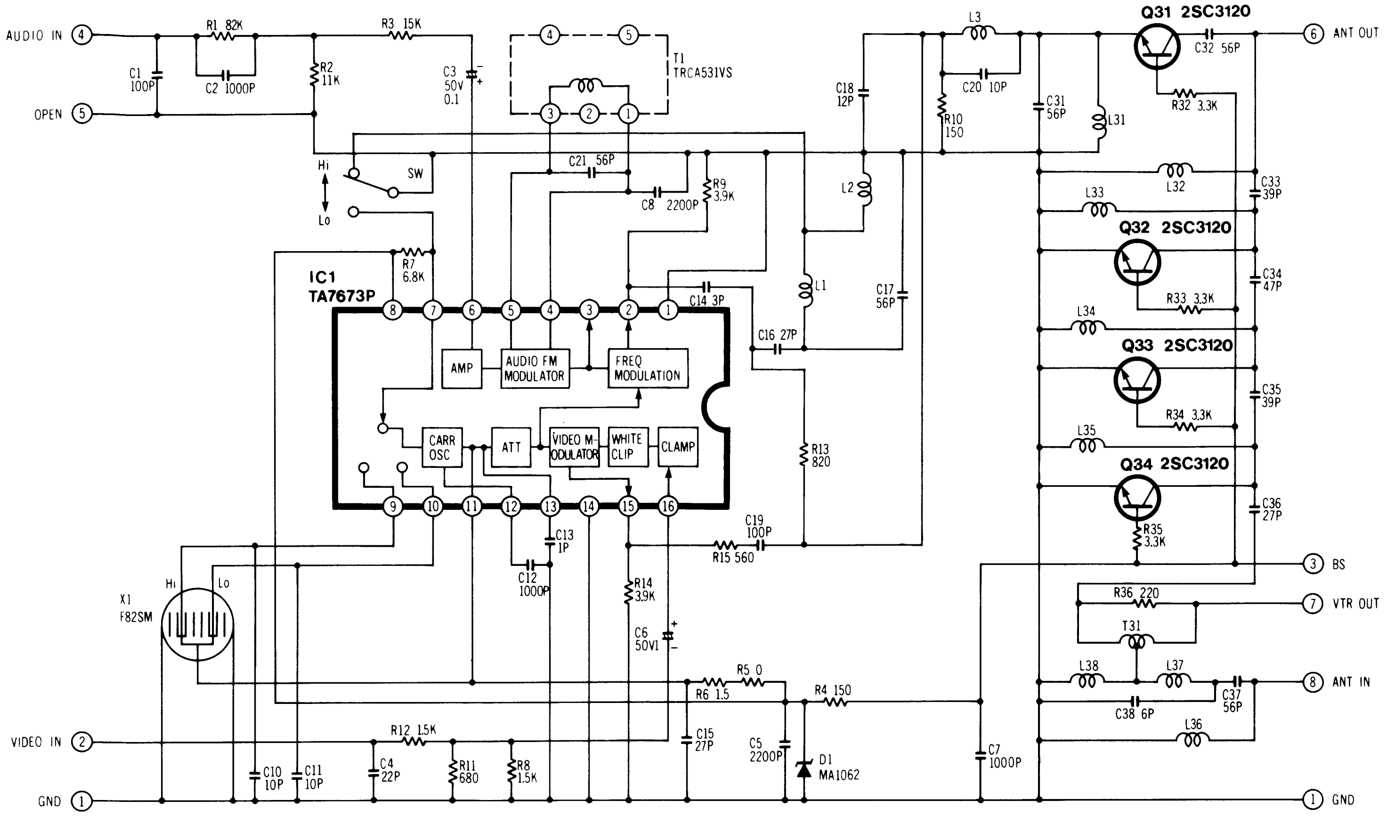
RF CONVERTER SCHEMATIC DIAGRAM (VEQ0536)


RF ouT
P1
1 VIDEO
2 BS
3 AUDIO
RF IN
VTR OUT
C101 68P
L101
L102
C102 3P
L103
R101 180
C103 56P
R102 3.3K
Q1 2SC3130
L105
C104 47P
R103 3.3K
Q2 2SC3130
L106
C105 56P
R104 3.3K
Q3 2SC3130
L107
C106 47P
C107 39P
L108
R105 3.3K
Q4 2SC3130
C108 33P
L109
C11 1
C10 22P
VR1 2K
X1 VSX00220
C12 18P
C15 1000P
C16 10P
R10 560
C17 100P
R9 3.9K
R7 1.5K
IC1 AN3122
R12 33
R5 82K
C6 1000P
R14 15K
C5 100P
R3 10K
C4 0.1
R2 5.6K
T1
R6 3.9K
C20 1.0P
C21 1.0P
L3
C22 56P
L1
L2
C23 18P
C24 18P
C25 18P
R1 180
C1 1000P
D1 MA4062M (6.2V)
C2 2200P
C7 82P
C8 1000P
SW1

RF CONVERTER C.B.A. (VEQ0536)

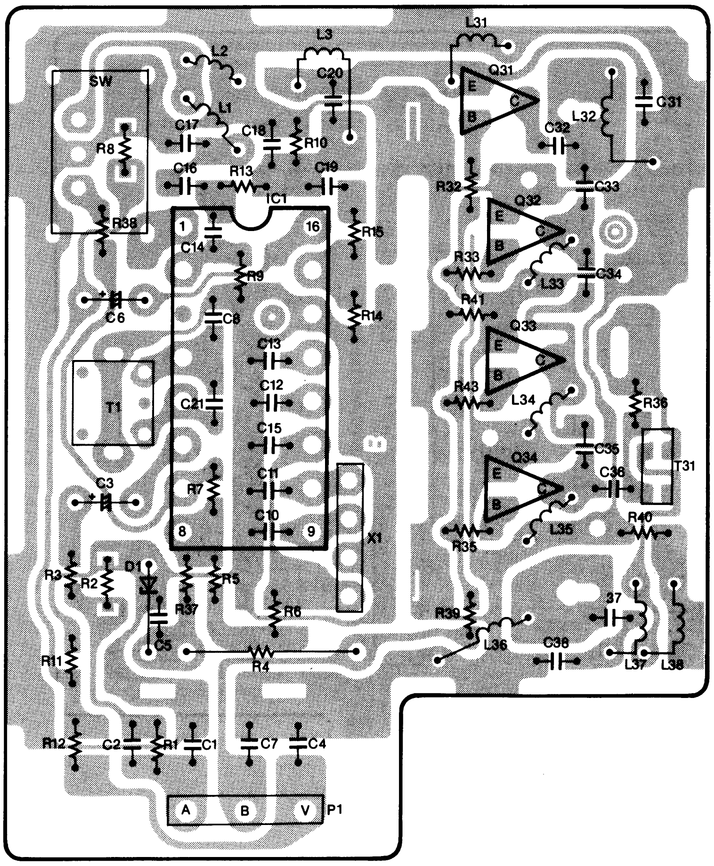

SW1
C23
L3
C25
C24
R12
C108
L109
Q4
L2
C21
VR1
L1
J1
1μ/50V
C17
C107
R105
C106
L108
Q3
C8
C22
C20
R10
R104
L107
C105
T1
C7
R6
R9
Q2
C16
C15
C12
R103
L106
C104
R101
L103
0.1μ/30V
X1
Q1
L105
R14
R2
IC1
R102
C103
L101
R3
R7
C102
C101
J1
C2
R1
L102
C6
C5
C1
C10
D1
R5
P1

RF CONVERTER SCHEMATIC DIAGRAM (ENC86902)

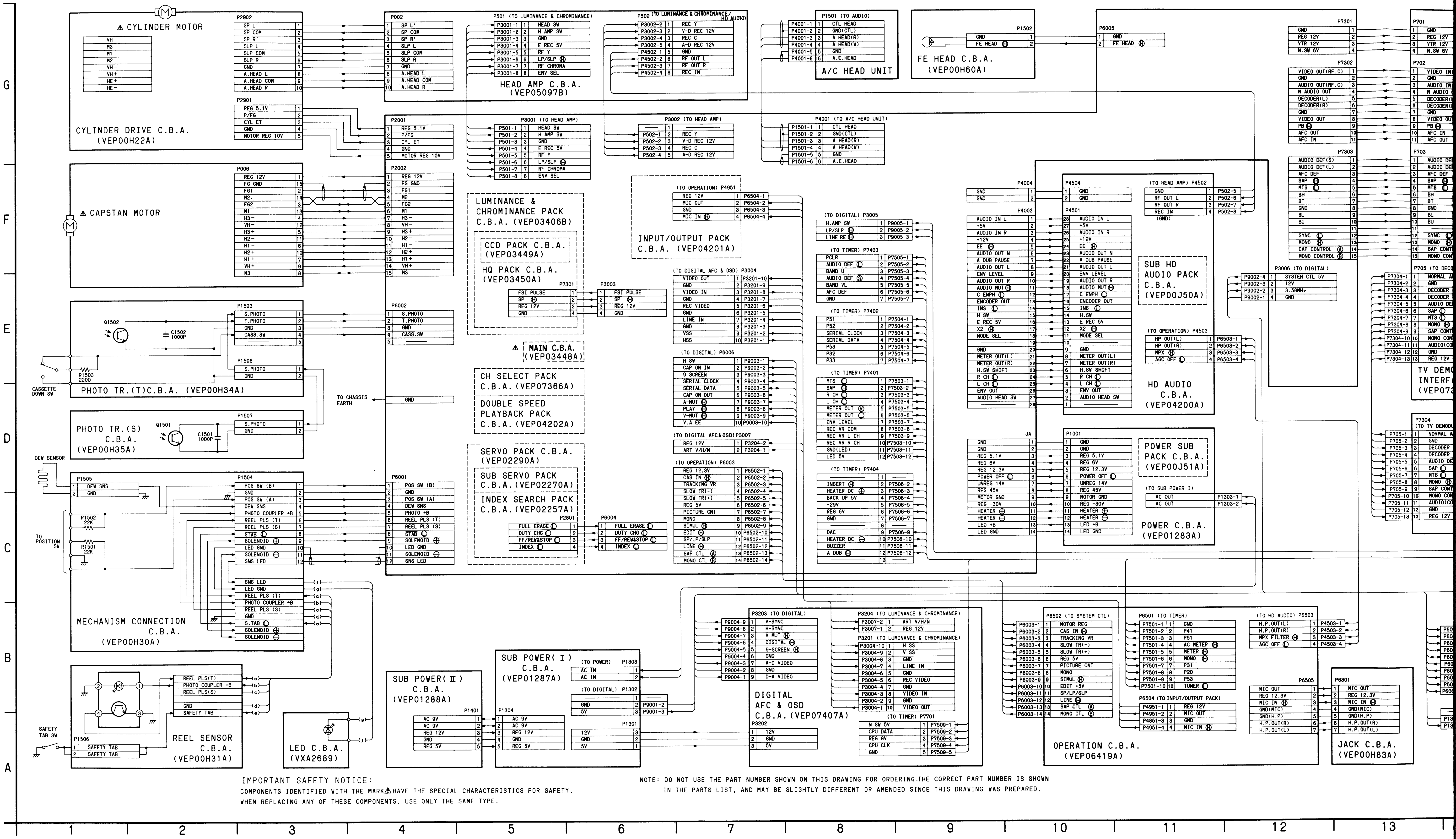

AUDIO IN ④
OPEN ⑤
VIDEO IN ②
GND ①
R1 82K
C1 100P
C2 1000P
R2 11K
R3 15K
C3 50V 0.1
T1 TRCA531VS
SW
Hi
Lo
R7 6.8K
IC1 TA7673P
AMP
AUDIO FM MODULATOR
FREQ MODULATION
CARR OSC
ATT
VIDEO M-ODULATOR
WHITE CLIP
CLAMP
C21 56P
C8 2200P
R9 3.9K
C14 3P
C16 27P
L1
L2
L3
C17 56P
C18 12P
C20 10P
R10 150
R13 820
C19 100P
R15 560
C13 1P
C12 1000P
R14 3.9K
C6 50V1
X1 F82SM
R5 0
R6 1.5
R4 150
C15 27P
C5 2200P
D1 MA1062
C7 1000P
R12 1.5K
C10 10P
C11 10P
C4 22P
R11 680
R8 1.5K
Q31 2SC3120
C32 56P
R32 3.3K
C31 56P
L31
L32
L33
C33 39P
Q32 2SC3120
C34 47P
R33 3.3K
L34
Q33 2SC3120
C35 39P
R34 3.3K
L35
Q34 2SC3120
C36 27P
R35 3.3K
R36 220
T31
L38
L37
C37 56P
C38 6P
L36
⑥ ANT OUT
③ BS
⑦ VTR OUT
⑧ ANT IN
① GND

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

RF CONVERTER C.B.A. (ENC86902)


SW
R8
R38
C6
T1
C3
L2
L1
L3
C20
C17
C18
R10
C16
R13
C19
IC1
1
16
8
9
C14
R9
C8
C13
C21
C12
C15
C11
C10
R7
R15
R14
X1
L31
Q31
E
B
C
C31
L32
C32
R32
C33
Q32
R33
L33
C34
R41
Q33
R43
L34
R36
C35
Q34
C36
T31
L35
R35
R40
R39
L36
C38
37
L37
L38
R3
R2
D1
R37
R5
R6
C5
R4
R11
R12
C2
R1
C1
C7
C4
A
B
V
P1

INTERCONNECTION SCHEMATIC DIAGRAM



⚠ CYLINDER MOTOR
CYLINDER DRIVE C.B.A. (VEP00H22A)
⚠ CAPSTAN MOTOR
PHOTO TR.(T)C.B.A. (VEP00H34A)
CASSETTE DOWN SW
PHOTO TR.(S) C.B.A. (VEP00H35A)
DEW SENSOR
TO POSITION SW
MECHANISM CONNECTION C.B.A. (VEP00H30A)
SAFETY TAB SW
REEL SENSOR C.B.A. (VEP00H31A)
LED C.B.A. (VXA2689)
SUB POWER(Ⅱ) C.B.A. (VEP01288A)
SUB POWER(Ⅰ) C.B.A. (VEP01287A)
TO CHASSIS EARTH
HEAD AMP C.B.A. (VEP05097B)
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03406B)
CCD PACK C.B.A. (VEP03449A)
HQ PACK C.B.A. (VEP03450A)
⚠ MAIN C.B.A. (VEP03448A)
CH SELECT PACK C.B.A. (VEP07366A)
DOUBLE SPEED PLAYBACK PACK C.B.A. (VEP04202A)
SERVO PACK C.B.A. (VEP02290A)
SUB SERVO PACK C.B.A. (VEP02270A)
INDEX SEARCH PACK C.B.A. (VEP02257A)
INPUT/OUTPUT PACK C.B.A. (VEP04201A)
DIGITAL AFC & OSD C.B.A. (VEP07407A)
A/C HEAD UNIT
FE HEAD C.B.A. (VEP00H60A)
SUB HD AUDIO PACK C.B.A. (VEP00J50A)
HD AUDIO C.B.A. (VEP04200A)
POWER SUB PACK C.B.A. (VEP00J51A)
POWER C.B.A. (VEP01283A)
OPERATION C.B.A. (VEP06419A)
JACK C.B.A. (VEP00H83A)
TV DEMO INTERF (VEP07
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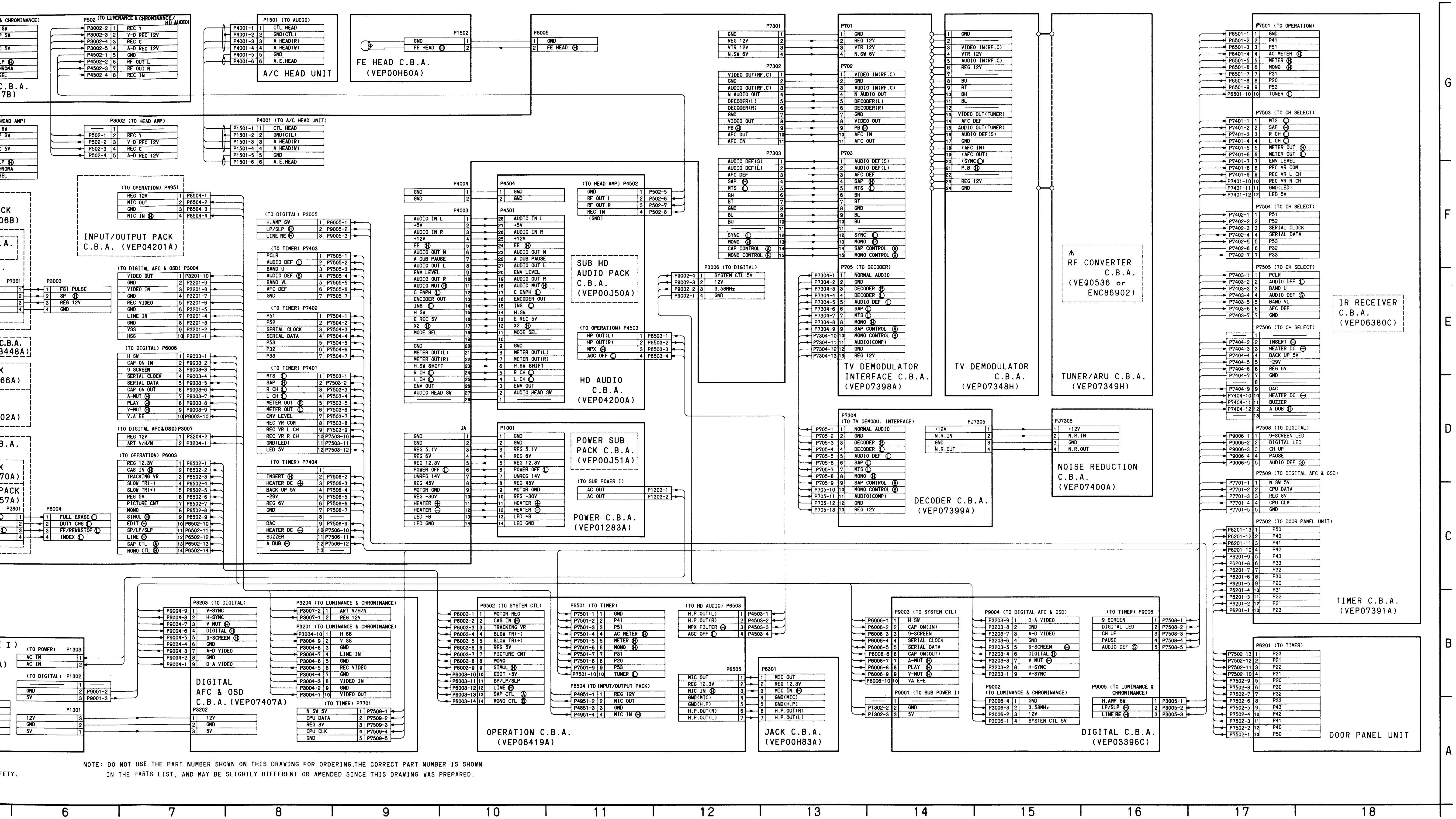
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK⚠HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.


A/C HEAD UNIT
FE HEAD C.B.A. (VEP00H60A)
INPUT/OUTPUT PACK C.B.A. (VEP04201A)
SUB HD AUDIO PACK C.B.A. (VEP00J50A)
HD AUDIO C.B.A. (VEP04200A)
POWER SUB PACK C.B.A. (VEP00J51A)
POWER C.B.A. (VEP01283A)
TV DEMODULATOR INTERFACE C.B.A. (VEP07398A)
TV DEMODULATOR C.B.A. (VEP07348H)
TUNER/ARU C.B.A. (VEP07349H)
RF CONVERTER C.B.A. (VEQ0536 or ENC86902)
IR RECEIVER C.B.A. (VEP06380C)
DECODER C.B.A. (VEP07399A)
NOISE REDUCTION C.B.A. (VEP07400A)
TIMER C.B.A. (VEP07391A)
DIGITAL AFC & OSD C.B.A. (VEP07407A)
OPERATION C.B.A. (VEP06419A)
JACK C.B.A. (VEP00H83A)
DIGITAL C.B.A. (VEP03396C)
DOOR PANEL UNIT
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E
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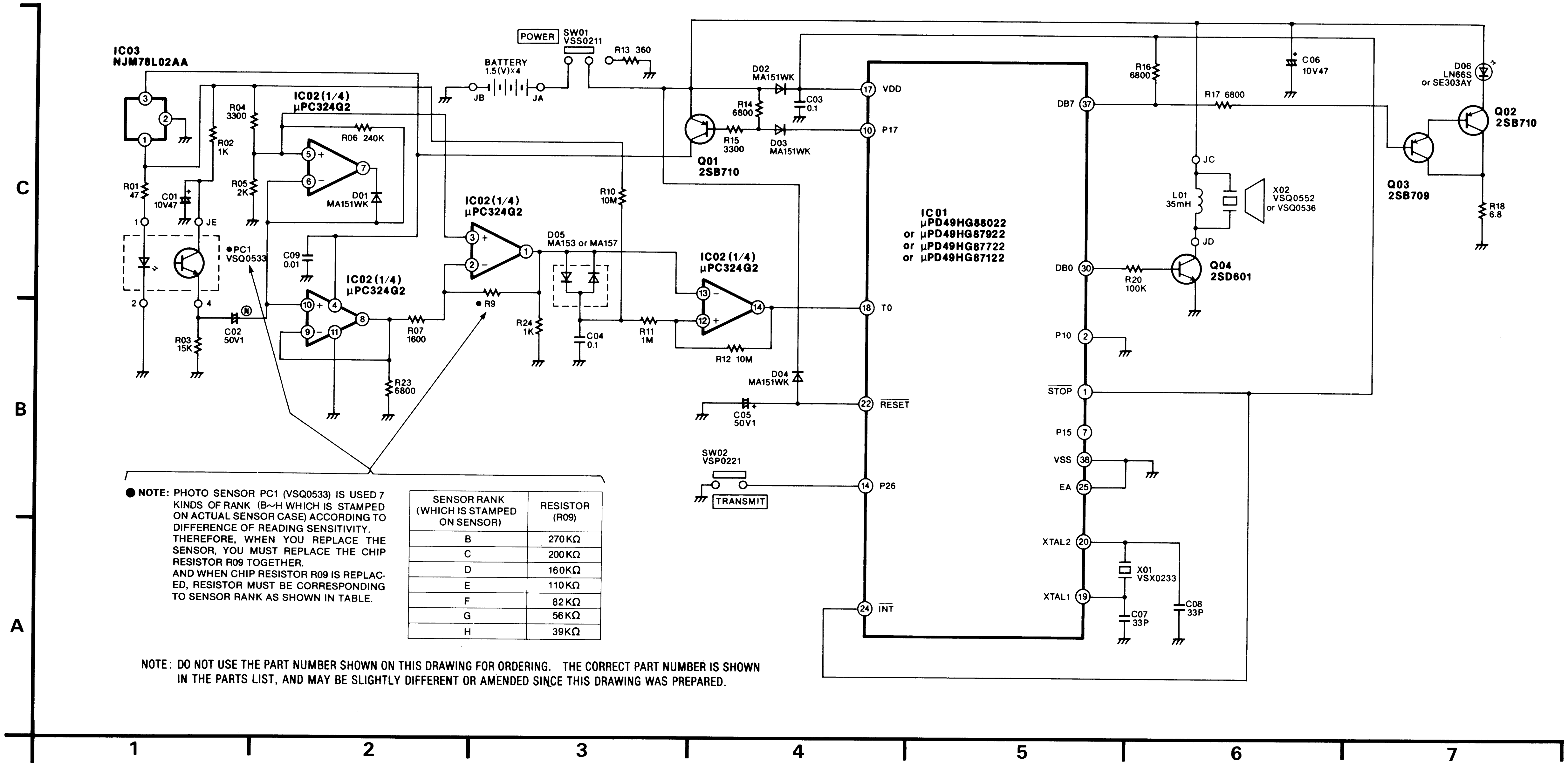
18

FETY.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DIGITAL SCANNER SCHEMATIC DIAGRAM — UNIT NO.: VEQ0566 —

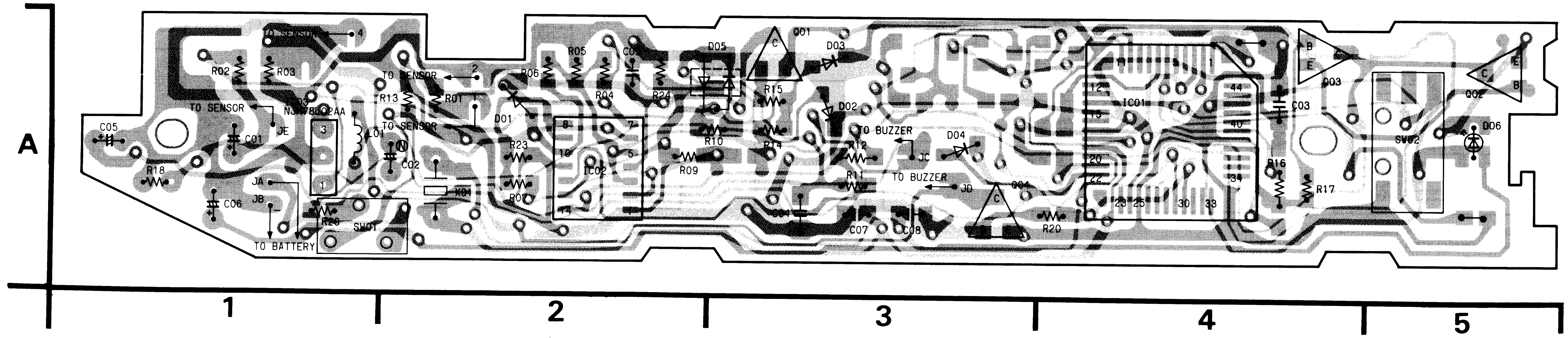

IC03
NJM78L02AA
IC02(1/4)
μPC324G2
R04 3300
R02 1K
R01 47
C01 10V47
R05 2K
R06 240K
D01 MA151WK
JE
PC1 VSQ0533
C09 0.01
R03 15K
C02 50V1
R07 1600
R23 6800
R9
R24 1K
C04 0.1
D05 MA153 or MA157
R10 10M
R11 1M
R12 10M
POWER
SW01 VSS0211
BATTERY 1.5(V)×4
JB
JA
R13 360
Q01 2SB710
R14 6800
R15 3300
D02 MA151WK
D03 MA151WK
C03 0.1
D04 MA151WK
C05 50V1
SW02 VSP0221
TRANSMIT
VDD
P17
T0
RESET
P26
INT
IC01
μPD49HG88022
or μPD49HG87922
or μPD49HG87722
or μPD49HG87122
DB7
DB0
P10
STOP
P15
VSS
EA
XTAL2
XTAL1
X01 VSX0233
C07 33P
C08 33P
R16 6800
C06 10V47
R17 6800
JC
JD
L01 35mH
X02 VSQ0552 or VSQ0536
R20 100K
Q04 2SD601
D06 LN66S or SE303AY
Q02 2SB710
Q03 2SB709
R18 6.8
A
B
C
1
2
3
4
5
6
7

● **NOTE:** PHOTO SENSOR PC1 (VSQ0533) IS USED 7 KINDS OF RANK (B~H WHICH IS STAMPED ON ACTUAL SENSOR CASE) ACCORDING TO DIFFERENCE OF READING SENSITIVITY.
THEREFORE, WHEN YOU REPLACE THE SENSOR, YOU MUST REPLACE THE CHIP RESISTOR R09 TOGETHER.
AND WHEN CHIP RESISTOR R09 IS REPLACED, RESISTOR MUST BE CORRESPONDING TO SENSOR RANK AS SHOWN IN TABLE.

SENSOR RANK (WHICH IS STAMPED ON SENSOR)	RESISTOR (R09)
B	270KΩ
C	200KΩ
D	160KΩ
E	110KΩ
F	82KΩ
G	56KΩ
H	39KΩ

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DIGITAL SCANNER C.B.A. (VEP66019F)


TO SENSOR
R02
R03
NJM78L02AA
C05
C01
JE
R18
C06
JA
JB
TO BATTERY
R23
SHOT
TO SENSOR
R13
R01
L01
C02
X01
D01
R06
R23
R07
R05
R04
IC02
R09
D05
R24
R10
Q01
R15
R14
D03
D02
TO BUZZER
JC
R12
R11
D04
JD
C04
C07
C08
Q04
R20
IC01
C03
Q03
R16
R17
SW02
Q02
D06
A
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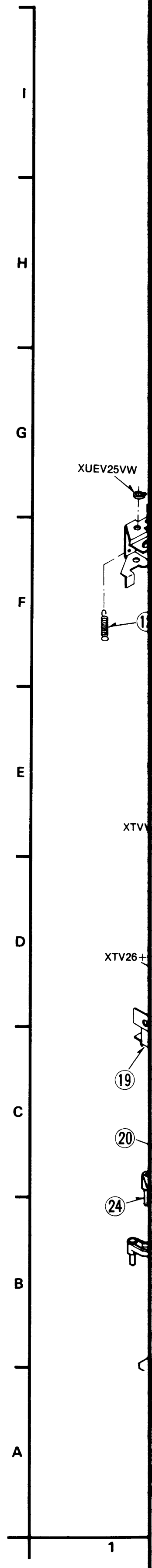
5

EXPLODED V


XUEV25VW
XTV26
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⑳
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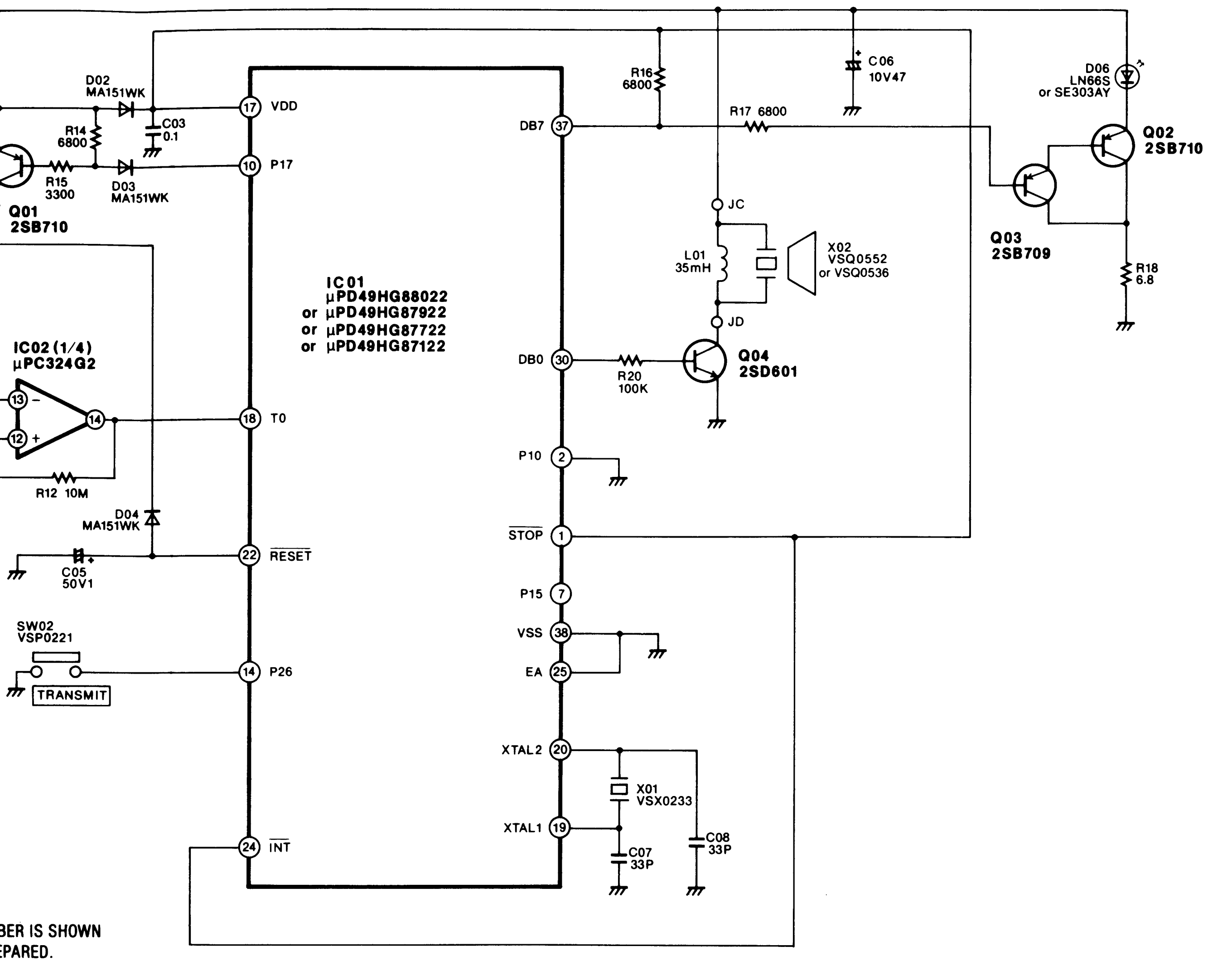
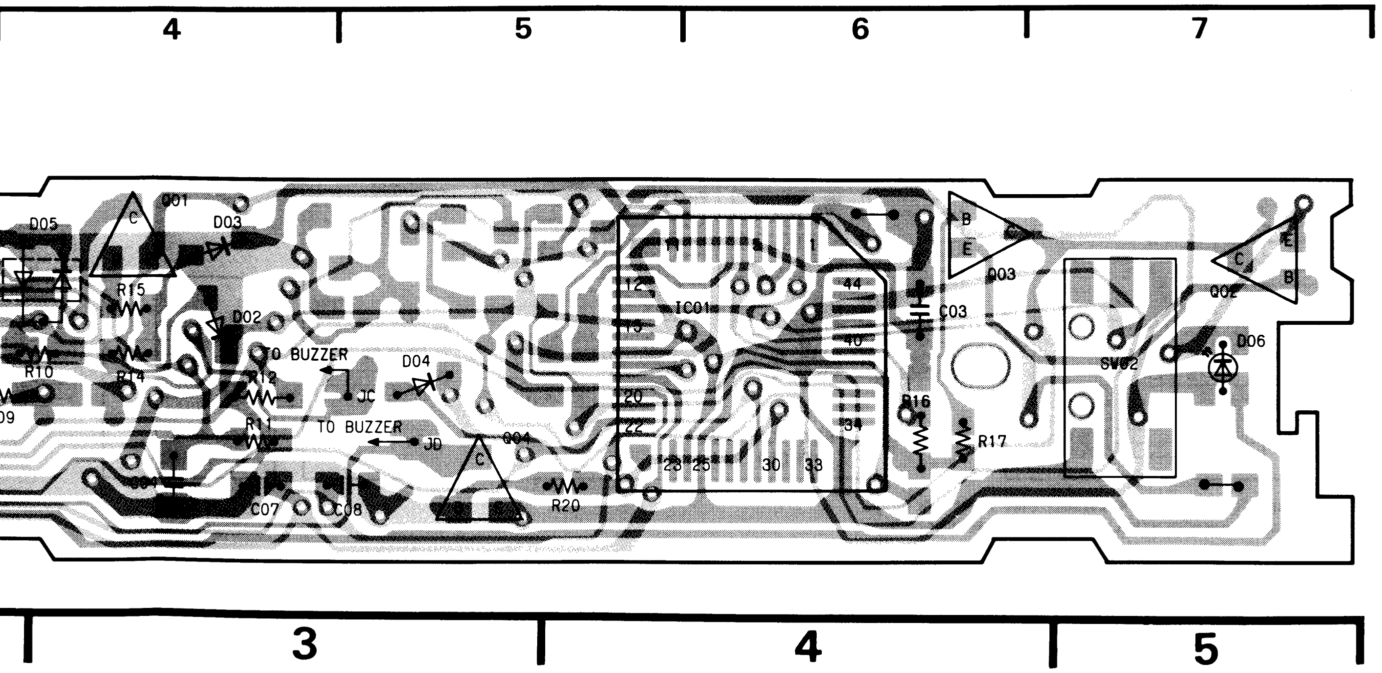
D
C
B
A
1

NIT NO.: VEQ0566 —


D02
MA151WK
R14
6800
C03
0.1
R15
3300
D03
MA151WK
Q01
2SB710
IC02 (1/4)
μPC324G2
R12 10M
D04
MA151WK
C05
50V1
SW02
VSP0221
TRANSMIT
VDD
P17
T0
RESET
P26
INT
IC01
μPD49HG88022
or μPD49HG87922
or μPD49HG87722
or μPD49HG87122
DB7
DB0
P10
STOP
P15
VSS
EA
XTAL2
XTAL1
R16
6800
C06
10V47
R17 6800
JC
L01
35mH
X02
VSQ0552
or VSQ0536
JD
R20
100K
Q04
2SD601
X01
VSX0233
C07
33P
C08
33P
D06
LN66S
or SE303AY
Q02
2SB710
Q03
2SB709
R18
6.8

BER IS SHOWN
EPARED.


4
5
6
7
D05
Q01
D03
R15
D02
R10
R14
R12
R11
TO BUZZER
JC
D04
TO BUZZER
JD
Q04
C07
C08
R20
IC01
C03
Q03
R16
R17
SW02
Q02
D06
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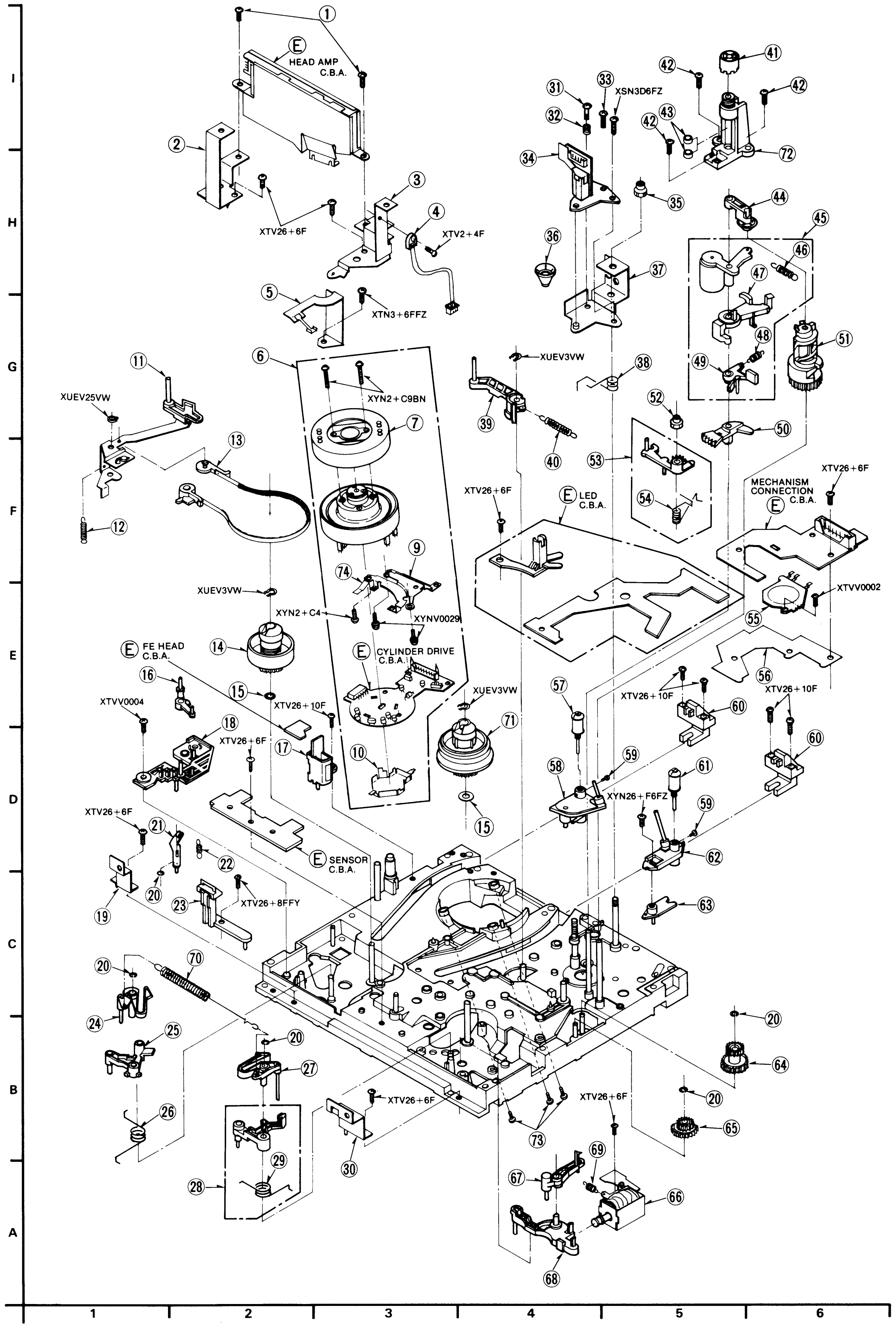
EXPLODED VIEWS ❶ *Chassis Parts Section (1)*


HEAD AMP C.B.A.
XTV26+6F
XTV2+4F
XTN3+6FFZ
XUEV25VW
XYN2+C9BN
XUEV3VW
XYN2+C4
XYNV0029
FE HEAD C.B.A.
CYLINDER DRIVE C.B.A.
XTVV0004
XTV26+10F
SENSOR C.B.A.
XTV26+8FFY
XSN3D6FZ
LED C.B.A.
MECHANISM CONNECTION C.B.A.
XTVV0002
XYN26+F6FZ
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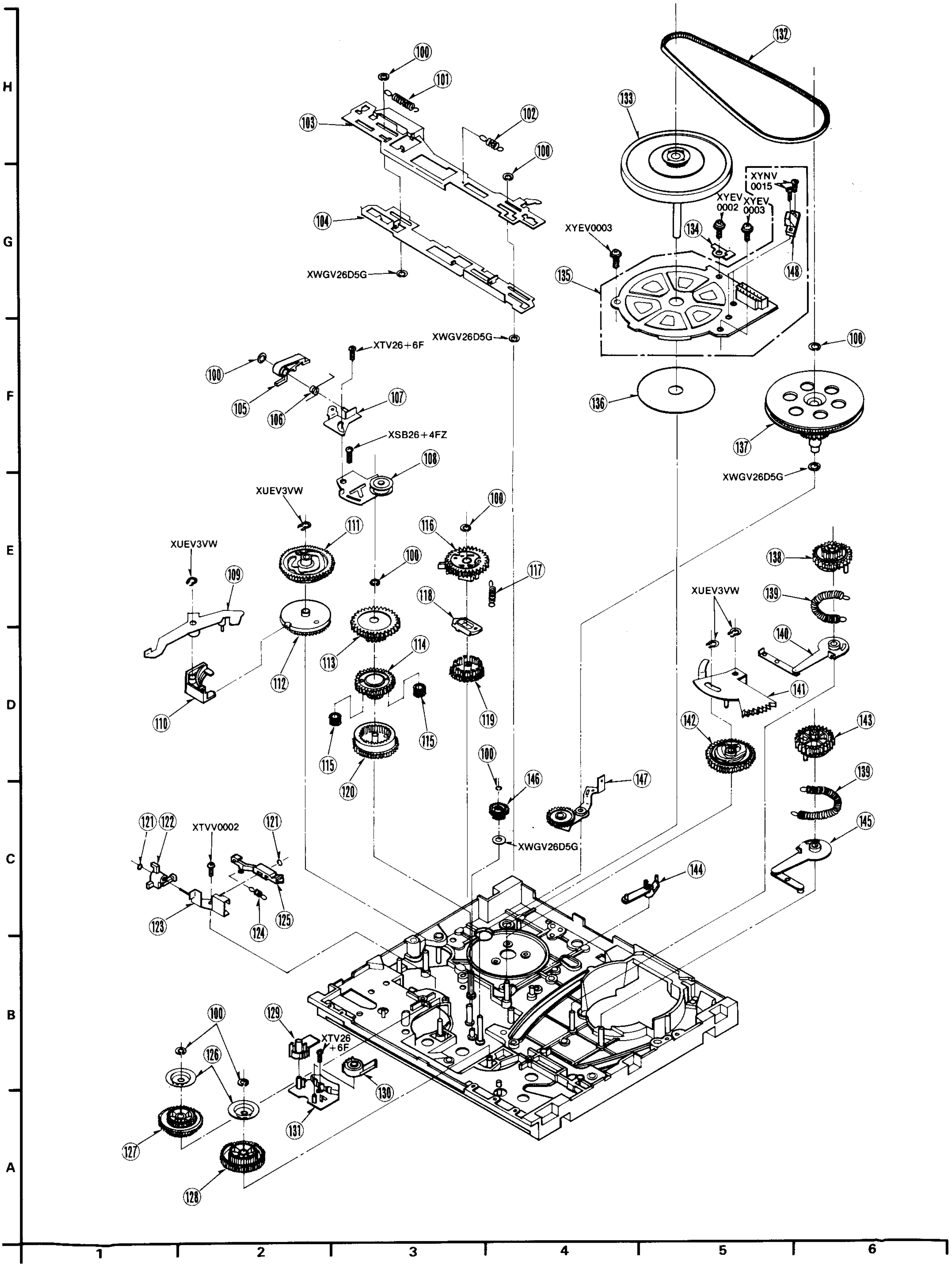
❷ Chassis Parts Section (2)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XWGV26D5G
XWGV26D5G
XTV26+6F
100
105
106
107
XSB26+4FZ
108
132
133
XYNV 0015
XYEV 0002
XYEV 0003
XYEV0003
134
148
135
100
136
137
XWGV26D5G
XUEV3VW
111
116
100
100
117
XUEV3VW
109
118
112
113
114
110
115
115
119
120
138
XUEV3VW
139
140
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142
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145
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146
147
XWGV26D5G
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122
XTVV0002
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XTV26 +6F
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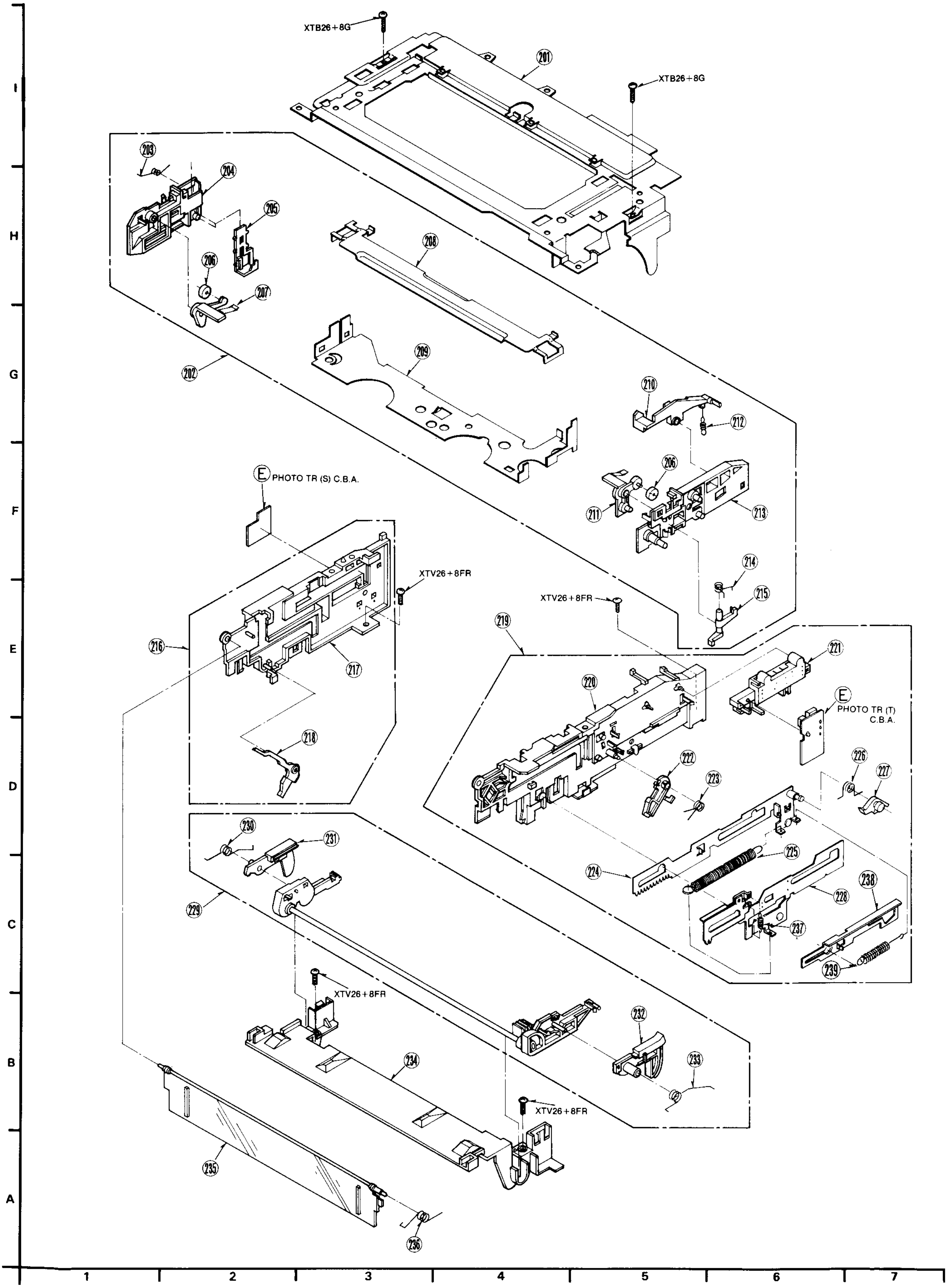
❸ Cassette Up Mehanism Section


XTB26+8G
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XTB26+8G
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E PHOTO TR (S) C.B.A.
XTV26+8FR
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218
XTV26+8FR
219
220
221
E PHOTO TR (T) C.B.A.
222
223
226
227
224
225
228
238
237
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229
XTV26+8FR
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XTV26+8FR
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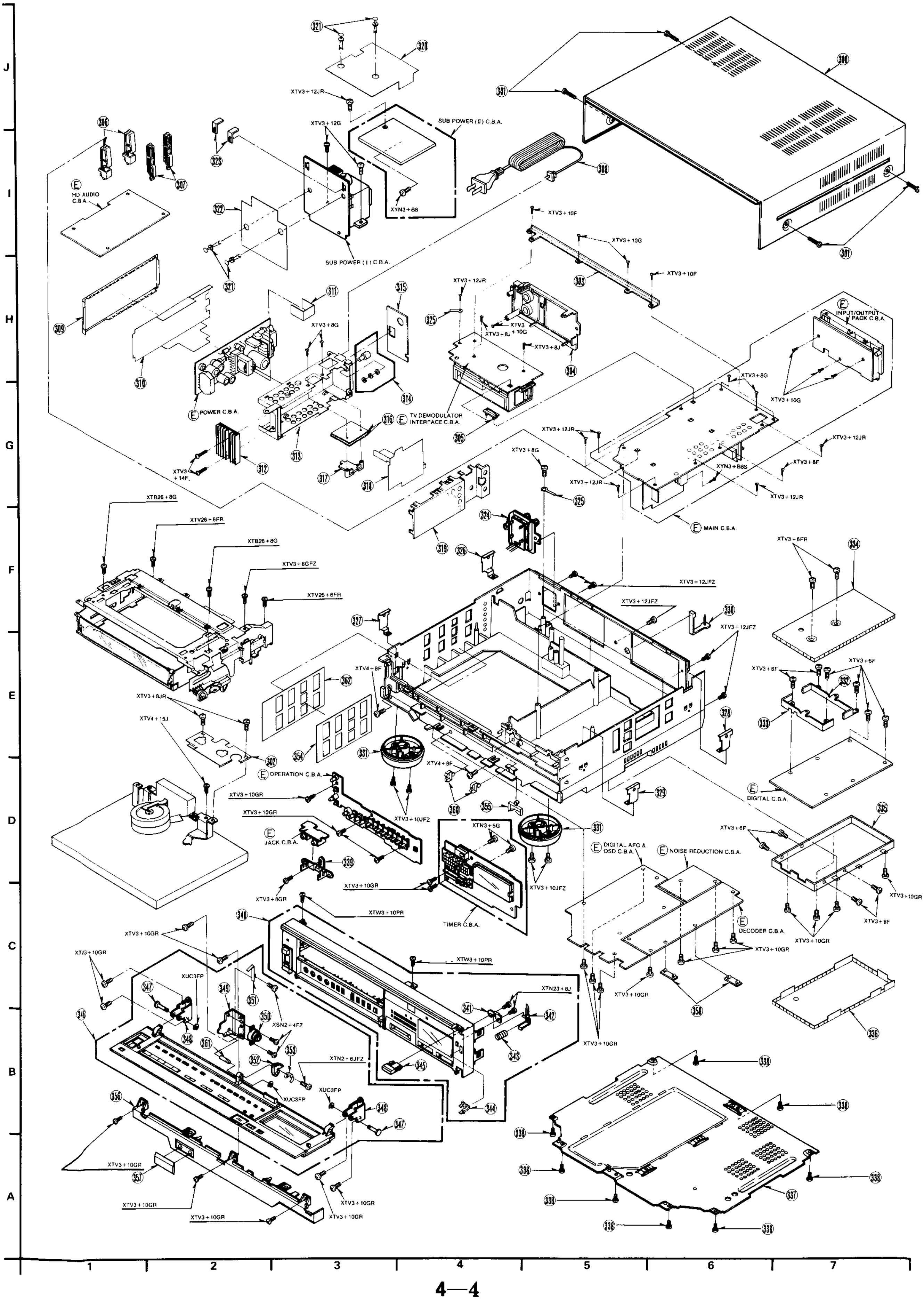
❹ *Casing Parts Section*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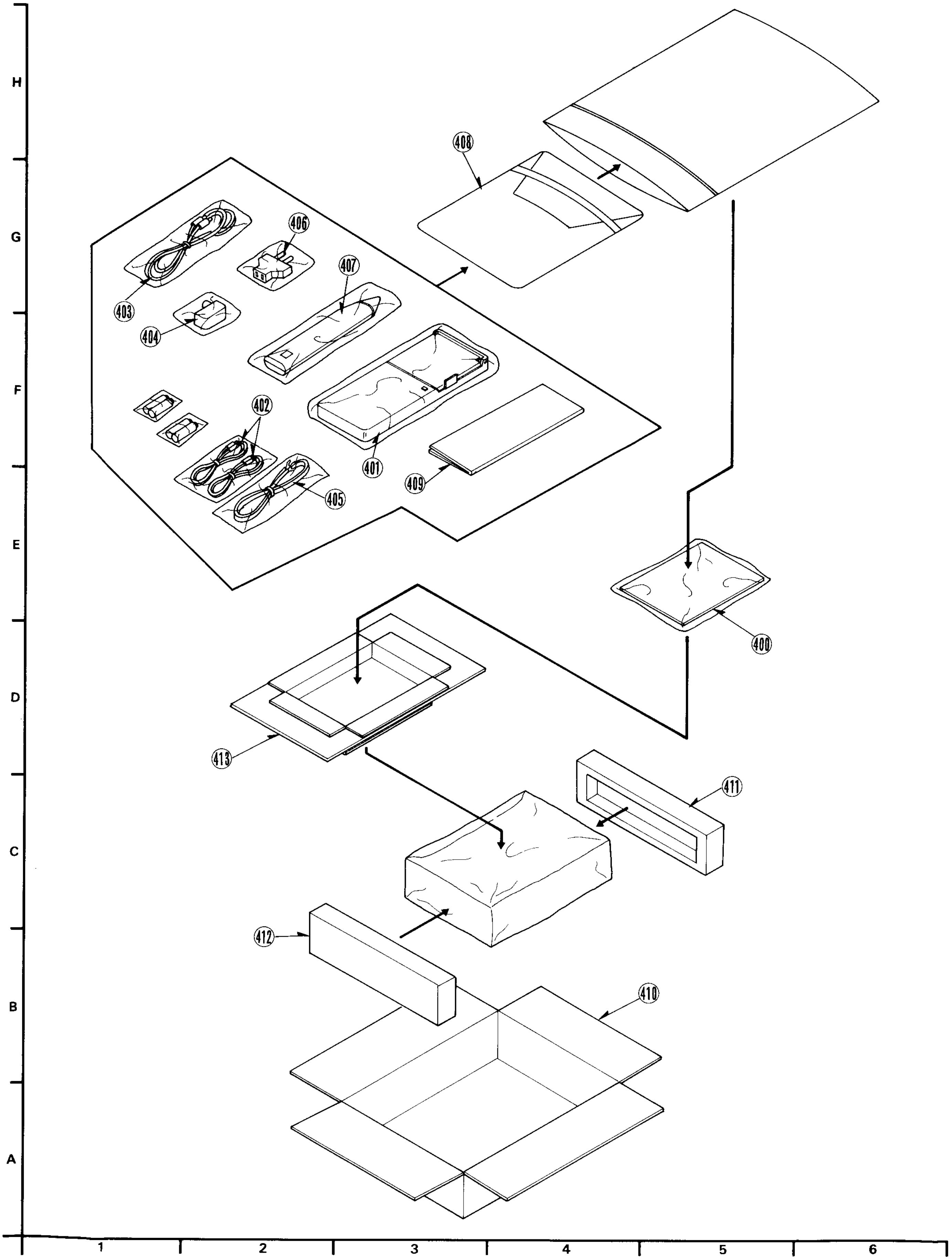
SUB POWER (Ⅱ) C.B.A.
SUB POWER (Ⅰ) C.B.A.
HD AUDIO C.B.A.
POWER C.B.A.
TV DEMODULATOR INTERFACE C.B.A.
INPUT/OUTPUT PACK C.B.A.
MAIN C.B.A.
OPERATION C.B.A.
JACK C.B.A.
TIMER C.B.A.
DIGITAL C.B.A.
DIGITAL AFC & OSD C.B.A.
NOISE REDUCTION C.B.A.
DECODER C.B.A.
XTV3+12JR
XTV3+12G
XYN3+B8
XTV3+10F
XTV3+10G
XTV3+8G
XTV3+8J
XTV3+14F
XTV3+12JFZ
XTV3+8F
XYN3+B8S
XTV3+6FR
XTV3+6F
XTB26+8G
XTV26+6FR
XTV3+6GFZ
XTV4+8F
XTV3+8JR
XTV4+15J
XTV3+10GR
XTV3+10JFZ
XTN3+6G
XTV3+8GR
XTW3+10PR
XUC3FP
XSN2+4FZ
XTN2+6JFZ
XTN23+8J

❺ Packing Parts Section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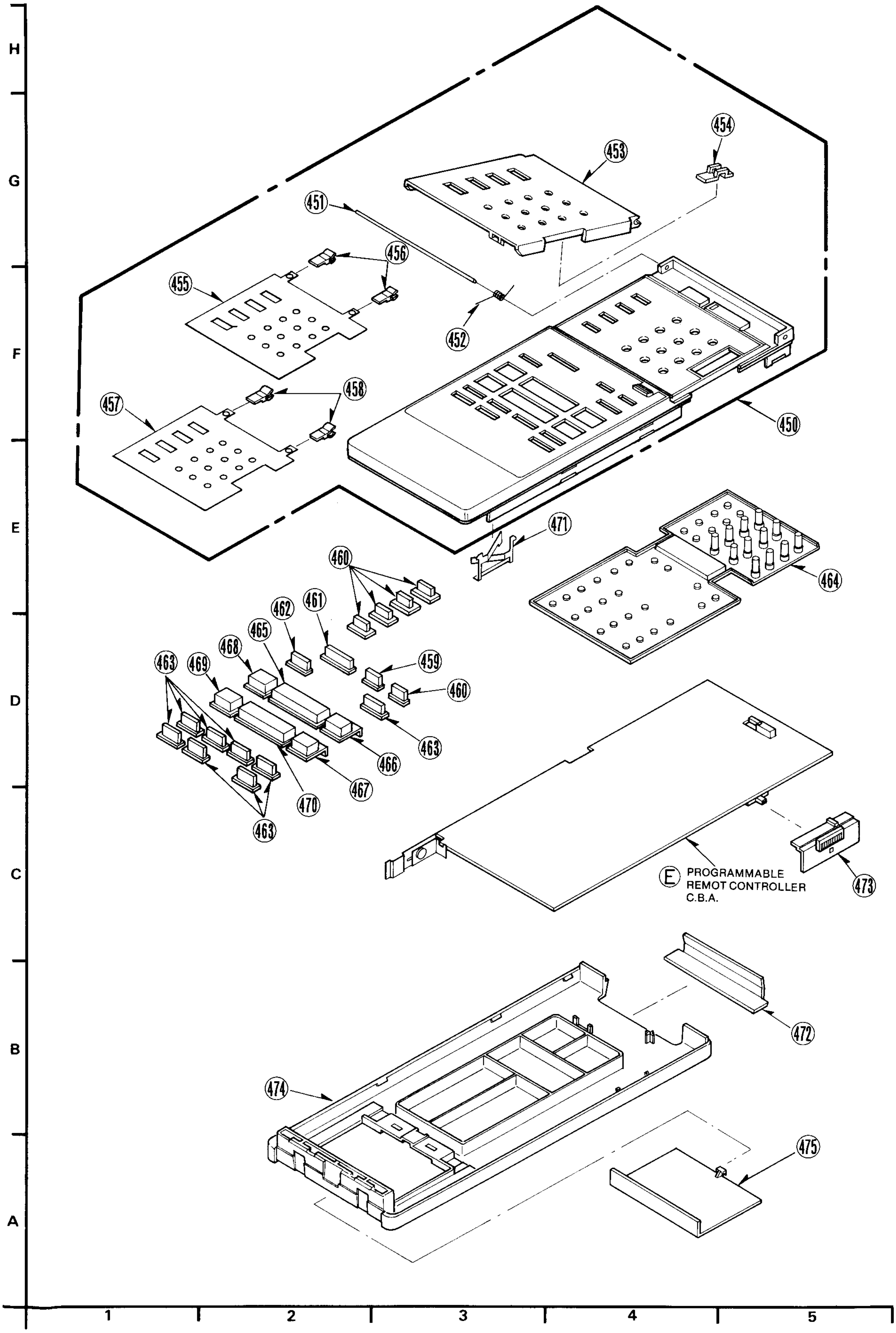
❻ Programmable Remote Controller Unit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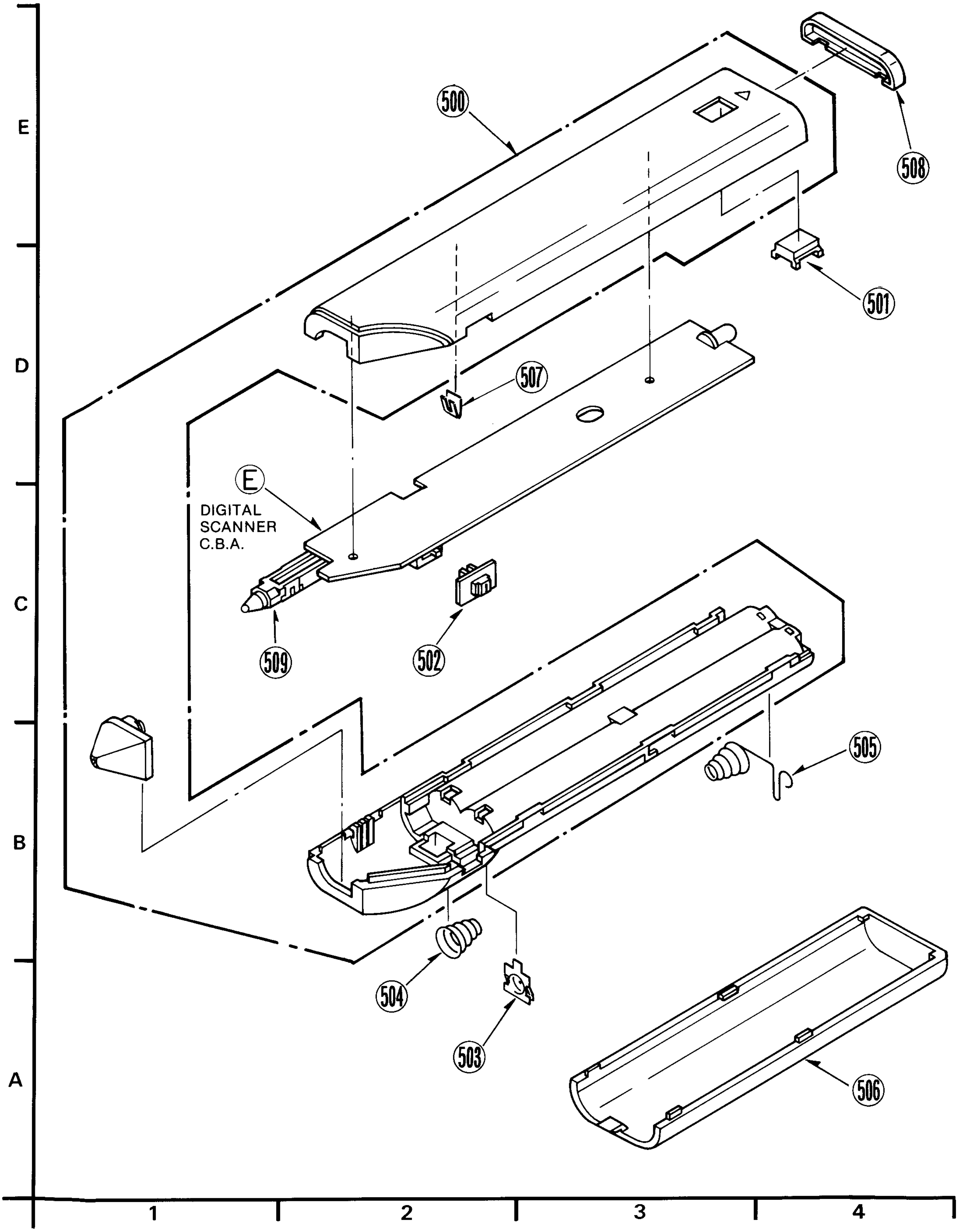
Ⓔ PROGRAMMABLE REMOT CONTROLLER C.B.A.

❼ Digital Scanner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501
507
E
DIGITAL SCANNER C.B.A.
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504
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506

ORDER NO. VRD8704126
(Date of issue : APR, 1987)

PARTS LIST

MODEL NO : NV-D80PX

1.NV-D80PX Mechanical Replacement Parts List

※This parts list is detachable from the manual.

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
1(1)		VHD0268	HEAD AMP SET SCREW	2	
2(1)		VMA6897	HEAD AMP MOUNT ANGLE (L)	1	
3(1)		VMA6898	HEAD AMP MOUNT ANGLE (R)	1	
4(1)		VEK3185	DEW SENSOR UNIT	1	
5(1)		VXA2702	EARTH PLATE UNIT	1	
6(1)		VEG0467	CYLINDER UNIT	1	<!>
7(1)		VEH0338	UPPER CYLINDER UNIT	1	
9(1)		VMA6884	MAIN HOLDER UNIT	1	
10(1)		VSC1806	CYLINDER C.B.A SHIELD PLATE	1	
11(1)		VXL1495	TENSION ARM (1) UNIT	1	
12(1)		VMB1563	TENSION SPRING	1	
13(1)		VXZ0225	TENSION BAND UNIT	1	
14(1)		VXR0145	SUPPLY REEL TABLE UNIT	1	
15(1)		VMX1171	REEL WASHER	2	
16(1)		VXL1496	TENSION RELEASE ARM(A)UNIT	1	
17(1)		VPS0038	FE HEAD	1	
18(1)		VXA2705	TENSION ARM BASE (1) UNIT	1	
19(1)		VMA6895	MOUNT ANGLE (L)	1	
20(1)		VMX1079	CUT WASHER	5	
21(1)		VXL1497	TENSION RELEASE ARM(B)UNIT	1	
22(1)		VMB1582	TENSION RELEASE SPRING	1	
23(1)		VES0350	SAFETY SW	1	
24(1)		VXZ0229	SUPPLY MAIN BRAKE UNIT	1	
25(1)		VXZ0228	SUPPLY SOFT BRAKE(1)UNIT	1	
26(1)		VMB1564	SUPPLY SOFT BRAKE SPRING	1	
27(1)		VXZ0231	TAKE UP MAIN BRAKE UNIT	1	
28(1)		VXZ0221	TAKE UP SOFT BRAKE UNIT	1	
29(1)		VMB1561	TAKE UP SOFT BRAKE SPRING	1	
30(1)		VMA6896	MOUNT ANGLE (R)	1	
31(1)		VHD0322	ADJUST SCREW	1	
32(1)		VMB1251	ADJUST SPRING	1	
33(1)		VHD0089B	AZIMUTH ADJUST SCREW	1	
34(1)		VBR0110	A/C HEAD	1	
35(1)		VHN0063	M4 NYLON NUT	1	
36(1)		VHN0050	ADJUST NUT	1	
37(1)		VXA2675	HEAD BASE UNIT	1	
38(1)		VMB1567	A/C HEAD SPRING	1	
39(1)		VXL1480	SUB LOADING ARM (1) UNIT	1	
40(1)		VMB1566	SUB POST SPRING	1	
41(1)		VXQ0006	THRUST SCREW UNIT	1	
42(1)		VHD0317	HOUSING SCREW	3	
43(1)		VMX1033	OIL SEAL	2	
44(1)		VMX1078	PINCH CAM CAP	1	
45(1)		VXL1481	PRESSURE ROLLER UNIT	1	
46(1)		VMB1568	PIN PRESSURE SPRING	1	
47(1)		VML1873	PINCH PRESSURE ARM	1	
48(1)		VMB1569	PINCH PRESSURE ARM RELEASE	1	
			SPRING		
49(1)		VML1874	PINCH LIFT ARM	1	
50(1)		VDG0357	P5 PULL OUT SECTOR GEAR	1	
51(1)		VDG0356	PINCH CAM	1	
52(1)		VHN0023	M3 NYLON NUT	1	
53(1)		VXL1485	P5 UNIT	1	
54(1)		VMB1554	P5 SPRING	1	
55(1)		VSS0175A	MODE SW	1	
56(1)		VSC1851	SHIELD PLATE	1	
57(1)		VXP0764B	ROLLER POST UNIT	1	
58(1)		VXA2729	INCLIND BASE (S)(1)UNIT	1	
59(1)		VHD0133	ROLLER POST SCREW	2	
60(1)		VMD0910	POST STOPPER	2	
61(1)		VXP0764A	ROLLER POST UNIT	1	
62(1)		VXA2686	INCLIND BASE(T)(1)UNIT	1	
63(1)		VXA2687	INCLIND ADJUST PLATE UNIT	1	
64(1)		VDG0334	PINCH SPEED DOWN GEAR	1	
65(1)		VDG0332	CONNECTION GEAR	1	
66(1)		VXA2693	SOLENOID	1	
67(1)		VXA2692	KICK ROD UNIT	1	
68(1)		VXA2691	SOLENOID LEVER (1) UNIT	1	
69(1)		VMB1553	KICK ROD SPRING	1	
70(1)		VMB1565	MAIN BRAKE SPRING	1	
71(1)		VXR0146	TAKE UP REEL TABLE UNIT	1	
72(1)		VXD0101	HOUSING UNIT	1	
73(1)		VHD0342	CYLINDER MOUNT SCREW	3	
74(1)		VSC1843	HEAT SINK PLATE	1	
100(2)		VMX1079	CUT WASHER	8	
101(2)		VMB1583	TAKE UP SOFT BRAKE RELEASE	1	
			ARM SPRING		
102(2)		VMB1560	MAIN LEVER SPRING	1	
103(2)		VXA2701	MAIN LEVER (1) UNIT	1	
104(2)		VMM0160	SUB LEVER	1	
105(2)		VXL1500	SS BRAKE ARM UNIT	1	
106(2)		VMB1588	SS BRAKE SPRING	1	
107(2)		VXA2707	SS BRAKE BASE (1) UNIT	1	
108(2)		VXA2674	TENSION ROLLER UNIT	1	
109(2)		VXL1491	CAM FOLLOWER ARM UNIT	1	
110(2)		VML1861	DETENT ARM	1	
111(2)		VDG0346	MAIN CAM GEAR	1	
112(2)		VDG0343	SUB CAM GEAR	1	
113(2)		VDG0348	CENTRE GEAR	1	
114(2)		VDG0344	RETAINER GEAR	1	
115(2)		VDG0345	PLANET GEAR	2	
116(2)		VDG0349	CLUTCH DISK	1	
117(2)		VMB1558	CLUTCH SPRING	1	
118(2)		VDG0350	LOCK SLIDE GEAR	1	
119(2)		VDG0335	DRIVE DISK	1	
120(2)		VDG0342	RING GEAR	1	
121(2)		VMX0967	CUT WASHER	2	
122(2)		VML1859	CHANGE LEVER	1	
123(2)		VXA2672	RELEASE LEVER (1) UNIT	1	
124(2)		VMB1557	RELEASE SPRING	1	
125(2)		VML1860	RELEASE LEVER	1	
126(2)		VMX1124	REEL GEAR RING	2	
127(2)		VXP0779	TAKE UP REEL GEAR UNIT	1	
128(2)		VDG0337	SUPPLY REEL GEAR	1	
129(2)		VML1858	RETURN LEVER (R)	1	
130(2)		VML1857	RETURN LEVER (L)	1	
131(2)		VMD0913	STOPPER BASE	1	
132(2)		VDV0159	TIMING BELT	1	
133(2)		VXP0777	ROTOR UNIT	1	
134(2)		VMA6998	ROTOR STOPPER	1	
135(2)		VEK2944	STATOR UNIT	1	<!>
136(2)		VMA6847	SUB PLATE	1	
137(2)		VXP0767	CENTRE PULLEY UNIT	1	
138(2)		VDG0340	LOADING GEAR (T)	1	
139(2)		VMB1555	LOADING SPRING	2	
140(2)		VXL1489	LOADING ARM (T)(1) UNIT	1	
141(2)		VXA2673	SECTOR GEAR UNIT	1	
142(2)		VDG0347	LOADING CAM GEAR	1	
143(2)		VDG0339	LOADING GEAR (S)	1	
144(2)		VML1855	PLAY CONTROL ARM	1	
145(2)		VXL1487	LOADING ARM (S)(1) UNIT	1	
146(2)		VDG0336	INTERMEDIATE GEAR	1	
147(2)		VXL1490	PLAY ARM UNIT	1	
148(2)		VBK0048	FG HEAD	1	
201(3)		VMA6903	TOP PLATE	1	
202(3)		VXA2679	CASSETTE HOLDER UNIT	1	
203(3)		VMB1573	MOUNT LEVER SPRING	1	
204(3)		VMD0919	HOLDER GUIDE (L)	1	
205(3)		VMM0163	MOUNT LEVER	1	
206(3)		VDP1077	ROLLER	2	
207(3)		VML1883	PRESSURE LEVER (L)	1	
208(3)		VMA6902	HOLDER ANGLE	1	
209(3)		VMA6901	CASSETTE HOLDER	1	
210(3)		VML1882	OPENER LEVER	1	
211(3)		VML1884	PRESSURE LEVER (R)	1	
212(3)		VMB1584	OPENER LEVER SPRING	1	
213(3)		VMD0920	HOLDER GUIDE (R)	1	
214(3)		VMB1576	RELEASE SPRING	1	
215(3)		VML1881	RELEASE LEVER	1	
216(3)		VXA2676	SIDE PLATE (L) UNIT	1	
217(3)		MVD0917	SIDE PLATE (L)	1	
218(3)		VML1880	OPENER LEVER	1	
219(3)		VXA2677	SIDE PLATE (R) UNIT	1	
220(3)		VMD0918	SIDE PLATE (R)	1	
221(3)		VSS0176	SLIDE SW	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
222(3)		VML1886	DOWN SUPPORT LEVER	1	
223(3)		VMB1575	DOWN SUPPORT SPRING	1	
224(3)		VXA2695	RACK (A)(1) UNIT	1	
225(3)		VMB1572	CLUTCH SPRING	1	
226(3)		VMB1574	LOCK SPRING	1	
227(3)		VML1885	LOCK LEVER	1	
228(3)		VXA2829	RACK (B) UNIT	1	
229(3)		VXP0771	MAIN SHAFT UNIT	1	
230(3)		VMB1570	SUB WIPER SPRING (L)	1	
231(3)		VML1878	SUB WIPER ARM	1	
232(3)		VML1879	SUB WIPER ARM (R)	1	
233(3)		VMB1571	SUB WIPER SPRING (R)	1	
234(3)		VMA6900	CASSETTE GUIDE	1	
235(3)		VKF0848	BLINDER PANEL	1	
236(3)		VMB1258	BLINDER SPRING	1	
237(3)		VMB1650	RACK (C) SPRING	1	
238(3)		VMA7062	CONNECTION ROD	1	
239(3)		VMB1686	CONNECTION ROD SPRING	1	
300(4)		VYP1939	TOP PANEL UNIT	1	
301(4)		VHD0304	SCREW	4	
302(4)		VXA2892	BCI SHIELD PLATE UNIT	1	
303(4)		VMP1059	SUPPORT ANGLE	1	
304(4)		VJH0425	RF&ANT. BOARD	1	
305(4)		VKC0083	HINGE CLIP	1	
306(4)		VKC0294	HINGE CLIP	2	
307(4)		VJF0403	SUDDLE HINGE	2	
308(4)		VJA0419	AC CORD	1	<!>
309(4)		VSC1827	SHIELD CASE (L)	1	
310(4)		VMZ1018	BARRIER (A)	1	<!>
311(4)		VMZ1053	BARRIER (H)	1	<!>
312(4)		VSC1933	HEAT SINK	1	
313(4)		VSC2045	SHIELD CASE MAIN	1	
314(4)		VJH0082	TERMINAL UNIT	1	
315(4)		VGH1312	POWER NAME PLATE	1	
316(4)		VMZ0876	INSULATION SHEET	2	<!>
317(4)		VGQ1109	TR. HOLDER	1	
318(4)		VMZ1030	BARRIER (C)	1	<!>
319(4)		VSC1829	SHIELD CASE (R)	1	
320(4)		VMZ1032	BARRIER (F)	1	<!>
321(4)		VHN0041	RIVET	4	
322(4)		VMZ1031	BARRIER (G)	1	<!>
323(4)		VKC0071	HINGE CLIP	2	
324(4)		VEJ0564	UHF ANT. TERMINAL	1	
325(4)		VJR3	CLAMPER	4	
326(4)		VMP1166	TOP HOLDER ANGLE (FR)	1	
327(4)		VMP1108	TOP HOLDER ANGLE (FL)	1	
328(4)		VMP1166	TOP HOLDER ANGLE (RR)	1	
329(4)		VMP1109	TOP HOLDER ANGLE (FR)	1	
330(4)		VJF0139	AC CORD CLAMPER	1	
331(4)		VYQ0019	LEG UNIT	2	
332(4)		VSC1967	DIGITAL SHIELD ANGLE (B)	1	
333(4)		VSC1966	DIGITAL SHIELD ANGLE (A)	1	
334(4)		VSC1894	DIGITAL SHIELD CASE (TOP)	1	
335(4)		VSC1895	DIGITAL SHIELD CASE MAIN	1	
336(4)		VSC1896	DIGITAL SHIELD CASE	1	
			(BOTTOM)		
337(4)		VKU0247	BOTTOM PLATE	1	
338(4)		VHD0059	SCREW	8	
339(4)		VJF0427	JACK SUPPORT	1	
340(4)		VYP1928	FRONT PANEL UNIT	1	
341(4)		VJF0426	BUTTON LEVER HOLDER	1	
342(4)		VML1969	DOOR OPEN LEVER	1	
343(4)		VMB1398	OPEN SPRING	1	
344(4)		VGQ0550	DOOR LOCK PIECE	1	
345(4)		VGU3555	DOOR OPEN BUTTON	1	
346(4)		VYF1067	DOOR PANEL UNIT	1	
347(4)		VMS3406	SHAFT (A)	2	
348(4)		VMP1141	DOOR PANEL ANGLE (A)	2	
349(4)		VMP1143	DOOR PANEL ANGLE (B)	1	
350(4)		VDG0391	DAMPER	1	
351(4)		VMC0301	DOOR PANEL SPRING	1	
352(4)		VDG0390	DOOR PANEL GEAR	1	
353(4)		VMC0283	EARTH SPRING (C)	1	
354(4)		VXA2885	BCI BARRIER	1	
355(4)		VJF0022	WIRE SUDDLE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
356(4)		VYP1929	FRONT LOWER PANEL UNIT	1	
357(4)		VGK1622	JACK COVER	1	
358(4)		VKC0271	HINGE CLIP	2	
360(4)		VJF0442	WIRE SADDLE	2	
361(4)		VMS3405	SHAFT (B)	1	
362(4)		VSC2027	BCI SHIELD PLATE		
400(5)		VQT2256	OPERATING INSTRUCTIONS	1	<!>
401(5)		VEQ0563	REMOTE CONTROL UNIT	1	
402(5)		VFA0028	AUDIO CABLE	1	
403(5)		VJA0322	COAXIAL CABLE WITH SPLITTER	1	
404(5)		VSQ0057	300ohm-75ohm TRANSFORMER	1	
405(5)		VJA0102	TWIN LEAD CABLE (FLAT)	1	
406(5)		VJSS0070	POWER PLUG ADAPTOR	1	
407(5)		VEQ0566	DIGITAL SCANNER	1	
408(5)		VFC0115	DIGITAL SCANNER CASE	1	
409(5)		VQC1022	PROGRAMME SHEET	1	
410(5)		VPG3388	PACKING CASE	1	
411(5)		VPN1882	CUSHION (R)	1	
412(5)		VPN1883	CUSHION (L)	1	
413(5)		VPN1921	ACCESSORIES PACKING CASE	1	
450(6)		VYK1643	TOP CASE UNIT	1	
451(6)		VMS3462	PANEL SHAFT	1	
452(6)		VMB1652	PANEL OPEN SPRING	1	
453(6)		VGH1289	VTR PANEL	1	
454(6)		VGQ1190	SLIDE PIECE	1	
455(6)		VGH1290	SEARCH PANEL	1	
456(6)		VJF0470	PANEL HOLDER (A)	2	
457(6)		VGH1291	DIGITAL PANEL	1	
458(6)		VJF0443	PANEL HOLDER (B)	2	
459(6)		VGU3837	TIMER REC BUTTON	1	
460(6)		VGU3559	SELECT BUTTON	5	
461(6)		VGU3561	POWER BUTTON	1	
462(6)		VGU3106	REC BUTTON	1	
463(6)		VGU3102	START/STOP BUTTON	8	
464(6)		VSP0248	RUBBER CONTACT	1	
465(6)		VGU3108	STOP BUTTON	1	
466(6)		VGU3109	F. ADV BUTTON	1	
467(6)		VGU3112	FF BUTTON	1	
468(6)		VGU3107	PAUSE/STILL BUTTON	1	
469(6)		VGU3110	REW BUTTON	1	
470(6)		VGU3111	PLAY BUTTON	1	
471(6)		VJR0229	ELECTRODE (COMMON)	1	
472(6)		VKW0788	IR WINDOW	1	
473(6)		VGU3557	MODE SELECT KNOB	1	
474(6)		VKM1046	BOTTOM CASE	1	
475(6)		VKF0745	BATTERY COVER	1	
500(7)		VYK1660	CASE UNIT	1	
501(7)		VGU3710	TRANSMISSION BUTTON	1	
502(7)		VGU3709	POWER SW KNOB	1	
503(7)		VJR0270	ELECTRODE (A)	1	
504(7)		VJR0271	ELECTRODE (B)	1	
505(7)		VJR0272	ELECTRODE (C)	1	
506(7)		VKF0900	BATTERY COVER	1	
507(7)		VMB1691	SUPPOT ANGLE	1	
508(7)		VKW0772	SMOKE FILTER	1	
509(7)		VSQ0533	SENSOR UNIT	1	
			JIG		
		VFM8080HMFP	VHS ALIGNMENT TAPE	1	
		VFK0335	RETAINING RING REMOVER	1	
			(3mm/4mm)		
		VFK0387	TENSION POST ADJUSTMENT	1	
			PLATE		
		VFK0191	POST ADJUSTMENT PLATE	1	
		VFK0190	REEL TABLE HEIGHT GAUGE	1	
		VFK0328	H-POSITION ADJ.	1	
			SCREWDRIVER		
		VFK0329	POST ADJUSTMENT SCREWDRIVER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VFK62	FAN TYPE TENSION GAUGE	1	
		VFK0326	HEX WRENCH SET	1	
		VFK0132	BACK TENSISON METER	1	
		VFK0343	CHECK LIGHT	1	
		VFK0344	HEIGHT ADJUSTMENT JIG	1	
		VFK27	HEAD CLEANING STICK	1	
		MOR265	MORLYTONE GREASE	1	
		VFK0283	SERVICE ALIGNMENT TOOL KIT	1	
		VFK0341	UPPER CYLINDER REMOVER	1	

2.NV-D80PX Electrical Replacement Parts List

Note:1.* Be sure to make your orders of replacement parts according to this list.

2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

3.Unless otherwise specified,
All resistors are in OHMS ,K=1,000 OHMS. All capacitors are in MICROFARADS(uf),P=uuF.

4.The P.C.Board units marked width'▮'show below the main assembled parts.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP03448A	MAIN C.B.A.	1	
			(POWER SUPPLY, SERVO,		INCLUDING THE SERVO
			LUMINANCE & CHROMINANCE,		PACK C.B.A.
			SYSTEM CONTROL, AUDIO,		(VEP02290A),
			TV DEMODULATOR)		SUB SERVO PACK C.B.A.
					(VEP02270A),
					INDEX SEARCH PACK
					C.B.A. (VEP02257A),
					LUMINANCE &
					CHROMINANCE PACK
					C.B.A.(VEP03406B),
					HQ PACK C.B.A.
					(VEP03450A),
					CCD PACK C.B.A.
					(VEP03449A),
					CH SELECT PACK C.B.A.
					(VEP07366A),
					DOUBLE SPEED PLAYBACK
					PACK C.B.A.
					(VEP04202A),
					INPUT/OUTPUT PACK
					C.B.A.(VEP04201A).
		VEP02290A	SERVO PACK C.B.A.	1	
					INCLUDING THE SUB
					SERVO PACK C.B.A.
					(VEP02270A).
					PARTS LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03448A).
		VEP02270A	SUB SERVO PACK C.B.A.	1	
					PARTS LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03448A).
		VEP02257A	INDEX SEARCH PACK C.B.A.	1	
					PARTS LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03448A).
		VEP03406B	LUMINANCE & CHROMINANCE	1	
			PACK C.B.A.		PARTS LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03448A).
		VEP03450A	HQ PACK C.B.A.	1	
					INCLUDING THE CCD
					PACK C.B.A.
					(VEP03449A).
					PARTS LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03448A).
		VEP03449A	CCD PACK C.B.A.	1	
					PARTS LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03448A).
		VEP07366A	CH SELECT PACK C.B.A.	1	
					PARTS LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03448A).
		VEP04202A	DOUBLE SPEED PLAYBACK	1	
			PACK C.B.A.		PARTS LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03448A).
		VEP04201A	INPUT/OUTPUT PACK C.B.A.	1	
					PARTS LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03448A).
		VEP03396C	DIGITAL C.B.A.	1	
		VEP04200A	HD AUDIO C.B.A.	1	
					INCLUDING THE SUB H
					AUDIO PACK C.B.A.
					(VEP00J50A).
		VEP00J50A	SUB HD AUDIO PACK C.B.A.	1	
					PARTS LIST IS
					INCLUDED IN FM
					AUDIO C.B.A.
					(VEP04200A).
		VEP05097B	HEAD AMP C.B.A.	1	
		VEP06419A	OPERATION C.B.A.	1	
		VEP07391A	TIMER C.B.A.	1	
					INCLUDING THE IR
					RECEIVER C.B.A.
					(VEP06380C).
		VEP06380C	IR RECEIVER C.B.A.	1	
					PARTS LIST IS
					INCLUDED IN TIMER
					C.B.A.(VEP07391A).
		VEP07407A	DIGITAL AFC & OSD C.B.A.	1	
		VEP07348H	TV DEMODULATOR C.B.A.	1	
		VEP07349H	TUNER/ARU C.B.A.	1	
		VEP07398A	TV DEMODULATOR INTERFACE	1	
			C.B.A.		
		VEP07399A	DECODER C.B.A.	1	
		VEP07400A	NOISE REDUCTION C.B.A.	1	
		VEP01283A	POWER C.B.A.	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
					INCLUDING THE POWER
					SUB PACK C.B.A.
					(VEP00J51A).
		VEP00J51A	POWER SUB PACK C.B.A.	1	
					PARTS LIST IS
					INCLUDED IN POWER
					C.B.A.(VEP01283A).
					<!>
		VEP01287A	SUB POWER (I) C.B.A.	1	<!>
		VEP01288A	SUB POWER (II) C.B.A.	1	<!>
		VEP00H83A	JACK C.B.A.	1	
		VEP66018A	PROGRAMMABLE REMOTE	1	
			CONTROLLER C.B.A.		
		VEP00H22A	CYLINDER DRIVE C.B.A.	1	
		VEP00H30A	MECHANISM CONNECTION C.B.A.	1	
		VEP00H31A	REEL SENSOR C.B.A.	1	
		VXA2689	LED C.B.A. UNIT	1	
		VEP00H34A	PHOTO TR(T) C.B.A.	1	
		VEP00H35A	PHOTO TR(S) C.B.A.	1	
		VEP00H60A	FE HEAD C.B.A.	1	
		VEQ0536	RF CONVERTER C.B.A.	1	OR ENC86902 <!>
		VEP66019F	DIGITAL SCANNER C.B.A.	1	
		TNV56809F2	TUNER	1	OR VSQ0556 <!>
F1001		XBA2C20NU0	FUSE	1	<!>
F1002		XBA1C30NU100	FUSE	1	<!>
		VWJ0264	FLEXIBLE CABLE 13P	1	P7506-P7404
		VWJ0265	FLEXIBLE CABLE 5P	1	P1503-P6002
		VWJ28AW150MM	FLEXIBLE CABLE 28P	1	P4501-P6003
	■	VEP03448A	MAIN C.B.A.		
			(POWER SUPPLY, SERVO,		
			LUMINANCE & CHROMINANCE,		
			SYSTEM CONTROL, AUDIO,		
			TV DEMODULATOR)		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CAPACITORS		
C202		ECEA1HKR47	ELECTROLYTIC 50V 0.47U	1	
C203		ECUX1H562KBN	CHIP 50V 5600P	1	
C204		ECEA1CN100S	ELECTROLYTIC 16V 10U	1	
C205		ECQB1H473JZ	MYLAR 50V 0.047U	1	
C206		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C207		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C208		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C209		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C210		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C211		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C212		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C213		ECQV1H683JZ	MYLAR 50V 0.068U	1	
C214		ECUX1H102KBN	CHIP 50V 1000P	1	
C215		ECEA1HKNR47	ELECTROLYTIC 50V 0.47U	1	
C216		ECQV1H473JZ	MYLAR 50V 0.047U	1	
C217		ECEA1HKR47	ELECTROLYTIC 50V 0.47U	1	
C218		ECUX1H472KBN	CHIP 50V 4700P	1	
C219		ECQV1H274JZ	MYLAR 50V 0.27U	1	
C220		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C221		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C222		ECQB1H103JH	MYLAR 50V 0.01U	1	
C223		ECUX1H562KBN	CHIP 50V 5600P	1	
C224		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C225		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C226		ECUX1H272KBN	CHIP 50V 2700P	1	
C227		ECUX1H332KBN	CHIP 50V 3300P	1	
C229		ECQB1H472JH	MYLAR 50V 4700P	1	
C230		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C231		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C232		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C234		ECUX1H102KBN	CHIP 50V 1000P	1	
C237		ECQB1H562JH	MYLAR 50V 5600P	1	
C238		ECEA0JK101	ELECTROLYTIC 6.3V 100U	1	
C239		ECEA0JK221	ELECTROLYTIC 6.3V 220U	1	
C240		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C241		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C242		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C243		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C244		ECEA1EK4R7.	ELECTROLYTIC 25V 4.7U	1	
C245		ECQB1H562JH	MYLAR 50V 5600P	1	
C246		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C247		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C248		ECUX1H102KBN	CHIP 50V 1000P	1	
C249		ECCF1H101JC	CERAMIC 50V 100P	1	
C250		ECCF1H151JC	CERAMIC 50V 150P	1	
C251		ECCF1H180JC	CERAMIC 50V 18P	1	
C252		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C253		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C254		VCYD1C473MR1	SEMICONDUCTOR 16V 0.047U	1	
C255		ECQB1H103KH	MYLAR 50V 0.01U	1	
C301		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C302		ECEA0JU221	ELECTROLYTIC 6.3V 220U	1	
C303		ECUX1H221KN	CHIP 50V 220P	1	
C304		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C305		ECUX1H121JCN	CHIP 50V 120P	1	
C306		ECEA0JK101	ELECTROLYTIC 6.3V 100U	1	
C307		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C308		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C309		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C310		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C311		ECUX1H820JCN	CHIP 50V 82P	1	
C313		ECUX1H121JCN	CHIP 50V 120P	1	
C314		ECUX1H220JCN	CHIP 50V 22P	1	
C315		ECEA1CK101	ELECTROLYTIC 16V 100U	1	
C317		ECUX1H151JCN	CHIP 50V 150P	1	
C318		ECUX1H820JCN	CHIP 50V 82P	1	
C319		ECUX1H151JCN	CHIP 50V 150P	1	
C320		ECUX1H330JCN	CHIP 50V 33P	1	
C321		ECUX1H101JCN	CHIP 50V 100P	1	
C322		ECEA0JU221	ELECTROLYTIC 6.3V 220U	1	
C323		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C324		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C325		ECUX1H820JCN	CHIP 50V 82P	1	
C326		ECUX1H470JCN	CHIP 50V 47P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C327		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C328		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C329		ECEA1EKN3R3	ELECTROLYTIC 25V 3.3U	1	
C330		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C331		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C451		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C452		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C453		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C454		ECUX1H821KBN	CHIP 50V 820P	1	
C455		ECUX1H821KBN	CHIP 50V 820P	1	
C456		ECUX1H102KBN	CHIP 50V 1000P	1	
C457		ECUX1H152KBN	CHIP 50V 1500P	1	
C460		ECUX1H100DCN	CHIP 50V 10P	1	
C461		ECUX1H331KBN	CHIP 50V 330P	1	
C462		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C463		ECUX1H222KBN	CHIP 50V 2200P	1	
C465		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C466		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C469		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C801		ECUX1H220JCN	CHIP 50V 22P	1	
C802		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C803		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C804		ECUX1H222KBN	CHIP 50V 2200P	1	
C805		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C806		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C807		ECUX1H080DCN	CHIP 50V 8P	1	
C808		ECUX1H102KBN	CHIP 50V 1000P	1	
C809		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C810		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C811		ECUX1H271JN	CHIP 50V 27P	1	
C812		ECEA10Z100	ELECTROLYTIC 10V 10U	1	
C813		ECUX1H271JN	CHIP 50V 27P	1	
C814		ECUX1H471KBN	CHIP 50V 470P	1	
C815		ECUX1H390JCN	CHIP 50V 39P	1	
C816		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C817		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C1101		ECEA0JU470	ELECTROLYTIC 6.3V 47U	1	
C1102		ECEA0JU470	ELECTROLYTIC 6.3V 47U	1	
C1103		ECEA0JU470	ELECTROLYTIC 6.3V 47U	1	
C1104		ECEA1CU330	ELECTROLYTIC 16V 33U	1	
C1105		ECEA1EU100	ELECTROLYTIC 25V 10U	1	
C2001		ECQB1H333KH	MYLAR 50V 0.033U	1	
C2002		ECQB1H333KH	MYLAR 50V 0.033U	1	
C2003		ECQB1H333KH	MYLAR 50V 0.033U	1	
C2004		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C2005		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C2006		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C2007		ECQB1H223JH	MYLAR 50V 0.022U	1	
C2008		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C2011		ECEA1CK101	ELECTROLYTIC 16V 100U	1	
C2012		ECQB1H332KH	MYLAR 50V 3300P	1	
C2013		ECQB1H332KH	MYLAR 50V 3300P	1	
C2014		ECQB1H332KH	MYLAR 50V 3300P	1	
C2017		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C2018		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C2019		ECEA1EU221	ELECTROLYTIC 25V 220U	1	
C2020		ECQV1H474JZ	MYLAR 50V 0.47U	1	
C2021		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C2030		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C2801		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C2802		ECQB1H223JH	MYLAR 50V 0.022U	1	
C2803		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C2804		ECKF1H181KB	CERAMIC 50V 1800P	1	
C2805		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C2806		ECCF1H220JC	CERAMIC 50V 22P	1	
C2807		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C2808		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C2809		ECEA0JK330	ELECTROLYTIC 6.3V 33U	1	
C2810		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C2811		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C2812		ECQV1H154JZ	MYLAR 50V 0.15U	1	
C2813		ECQV1H154JZ	MYLAR 50V 0.15U	1	
C2814		ECQB1H182KH	MYLAR 50V 1800P	1	
C2815		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C2816		ECEA1HKN4R7	ELECTROLYTIC 50V 4.7U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C3001		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C3002		ECEA0JU102	ELECTROLYTIC 6.3V 1000U	1	
C3003		ECEA0JU102	ELECTROLYTIC 6.3V 1000U	1	
C3004		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C3005		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3006		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C3007		ECCF1H180J	CERAMIC 50V 18P	1	
C3008		ECCF1H180J	CERAMIC 50V 18P	1	
C3009		ECKF1H391KB	CERAMIC 50V 390P	1	
C3010		ECCF1H820J	CERAMIC 50V 82P	1	
C3013		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C3014		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C3015		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C3016		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3017		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C3018		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C3020		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C3021		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C3022		ECEA1HKR33	ELECTROLYTIC 50V 0.33U	1	
C3023		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C3025		ECCF1H101DC	CERAMIC 50V 100P	1	
C3051		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C3052		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C3053		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C3701		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C3702		ECUX1H150JCN	CHIP 50V 15P	1	
C3703		ECEA1HKR47	ELECTROLYTIC 50V 0.47U	1	
C3704		ECUX1H331KBN	CHIP 50V 330P	1	
C3705		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C3706		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C3707		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C3708		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C3709		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3710		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C3711		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3712		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C3713		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3714		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3715		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3716		ECCF1H050CC	CERAMIC 50V 5P	1	
C3717		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3718		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3719		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C3720		ECUX1E473ZFN	CHIP 25V 0.047U	1	
C3721		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3722		ECUX1H271JN	CHIP 50V 27P	1	
C3723		ECUX1H271JN	CHIP 50V 27P	1	
C3724		ECUX1E473ZFN	CHIP 25V 0.047U	1	
C3725		ECEA0JK101	ELECTROLYTIC 6.3V 100U	1	
C3726		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C3727		ECUX1H121JCN	CHIP 50V 120P	1	
C3728		ECUX1H561KBN	CHIP 50V 560P	1	
C3729		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C3730		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C3731		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C3732		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3733		ECEA0JKN330	ELECTROLYTIC 6.3V 33U	1	
C3734		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3735		ECUX1H470JCN	CHIP 50V 47P	1	
C3736		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3737		ECUX1H221KN	CHIP 50V 220P	1	
C3738		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C3801		ECEA0JKS470	ELECTROLYTIC 6.3V 47U	1	
C3802		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3803		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3804		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3805		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3806		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3807		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3808		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3809		ECUX1H220JCN	CHIP 50V 22P	1	
C3810		ECUX1H220JCN	CHIP 50V 22P	1	
C3811		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3812		ECEA0JKS220	ELECTROLYTIC 6.3V 22U	1	
C3813		ECEA0JKS101	ELECTROLYTIC 6.3V 100U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C3814		ECEA0JKS220	ELECTROLYTIC 6.3V 22U	1	
C3815		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C3901		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C3902		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C3903		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C3904		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C4001		ECQB1H392JH	MYLAR 50V 3900P	1	
C4003		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C4004		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C4005		ECEA1AK220	ELECTROLYTIC 10V 22U	1	
C4006		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4007		ECEA50MX1	ELECTROLYTIC 50V 1U	1	
C4008		ECKF1H331KB	CERAMIC 50V 330P	1	
C4009		ECKF1H102KB	CERAMIC 50V 1000P	1	
C4010		ECQB1H103JH	MYLAR 50V 0.01U	1	
C4011		ECEA16M10	ELECTROLYTIC 16V 10U	1	
C4012		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C4013		ECEA1AK220	ELECTROLYTIC 10V 22U	1	
C4014		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C4015		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4016		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4017		ECQB1H223KH	MYLAR 50V 0.022U	1	
C4018		ECQB1H333JH	MYLAR 50V 0.033U	1	
C4019		ECQB1H273KH	MYLAR 50V 0.027U	1	
C4020		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4021		ECKF1H102KB	CERAMIC 50V 1000P	1	
C4023		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4024		ECQP1222JZ	MYLAR 100V 2200P	1	
C4025		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C4026		ECEA1CKS470	ELECTROLYTIC 16V 47U	1	
C4028		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C4029		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C4031		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4032		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4050		ECQV1H563JZ	MYLAR 50V 0.056U	1	
C4051		ECQV1H184JZ	MYLAR 50V 0.18U	1	
C4901		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C4902		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C4903		ECEA1EKN3R3	ELECTROLYTIC 25V 3.3U	1	
C4904		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C4905		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C4906		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C4907		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C4908		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4909		ECEA1AK330	ELECTROLYTIC 10V 33U	1	
C4910		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C4911		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4912		ECEA1AK330	ELECTROLYTIC 10V 33U	1	
C4913		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C4914		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4915		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4916		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4917		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C4918		ECEA1AK330	ELECTROLYTIC 10V 33U	1	
C4919		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C4920		ECEA1CK220	ELECTROLYTIC 16V 22U	1	
C4921		ECEA1AK330	ELECTROLYTIC 10V 33U	1	
C4922		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C4923		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4924		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C4925		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C6001		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C6002		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C6003		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C6006		ECEA0JK330	ELECTROLYTIC 6.3V 33U	1	
C6007		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C6011		ECQB1H103KH	MYLAR 50V 0.01U	1	
C6012		ECQB1H103KH	MYLAR 50V 0.01U	1	
C6013		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C6014		ECKF1H221KB	CERAMIC 50V 220P	1	
C6015		ECKF1H221KB	CERAMIC 50V 220P	1	
C6016		ECKF1H221KB	CERAMIC 50V 220P	1	
C6017		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C6018		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C6019		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C6020		ECQB1H103KH	MYLAR 50V 0.01U	1	
C6021		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C6025		ECKF1H271KB	CERAMIC 50V 270P	1	
C6026		ECKF1H271KB	CERAMIC 50V 270P	1	
C6027		ECKF1H271KB	CERAMIC 50V 270P	1	
C6029		ECEA1CK101	ELECTROLYTIC 16V 100U	1	
C7552		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7553		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7554		ECEA1VK220	ELECTROLYTIC 35V 22U	1	
C7555		ECQB1H273KH	MYLAR 50V 0.027U	1	
C7556		ECQV1H823JZ	MYLAR 50V 0.082U	1	
C7557		ECQV1H683JZ	MYLAR 50V 0.068U	1	
C7558		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7559		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C7560		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7561		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7563		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7565		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7566		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7567		ECEA1CK220	ELECTROLYTIC 16V 22U	1	
C7569		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7570		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C7571		EECF5R5U105	GOLD 5.5V 1.0F	1	
C7590		ECEA0JU471	ELECTROLYTIC 6.3V 470U	1	
			COMBINATION PARTS		
			(CAPACITOR & RESISTOR)		
CR3001		EXED103Z821C	C & R 0.01U 820	1	
CR4001		EXED102K272C	C & R 1000P 2.7K	1	
CR4002		EXED153M223C	C & R 0.015U 22K	1	
			DIODES		
D201		MA165	DIODE	1	
D202		MA165	DIODE	1	
D302		MA221	DIODE	1	
D303		1SS283	DIODE	1	
D304		1SS283	DIODE	1	
D305		1SS283	DIODE	1	
D306		MA221	DIODE	1	
D307		1SS283	DIODE	1	
D308		MA221	DIODE	1	
D309		MA221	DIODE	1	
D310		MA221	DIODE	1	
D451		MA165	DIODE	1	
D1102		MA165	DIODE	1	
D1103		11ES2	DIODE	1	
D2001		MA165	DIODE	1	
D2002		MA165	DIODE	1	
D2003		MA165	DIODE	1	
D2004		MA165	DIODE	1	
D2007		MA165	DIODE	1	
D2008		MA165	DIODE	1	
D2009		MA165	DIODE	1	
D2020		MA165	DIODE	1	
D2021		MA165	DIODE	1	
D2801		MA165	DIODE	1	
D2802		MA165	DIODE	1	
D2803		MA165	DIODE	1	
D2804		MA165	DIODE	1	
D3001		MA165	DIODE	1	
D3002		MA165	DIODE	1	
D3003		MA165	DIODE	1	
D3004		MA165	DIODE	1	
D3005		MA165	DIODE	1	
D3007		MA165	DIODE	1	
D3008		MA165	DIODE	1	
D3009		MA165	DIODE	1	
D3051		MA165	DIODE	1	
D3052		MA165	DIODE	1	
D3701		MA221	DIODE	1	
D3702		MA221	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D3703		MA221	DIODE	1	
D4002		MA165	DIODE	1	
D4901		MA165	DIODE	1	
D4902		MA165	DIODE	1	
D4903		MA165	DIODE	1	
D6001		11ES1	DIODE	1	
D6002		MA165	DIODE	1	
D6004		MA165	DIODE	1	
D6005		MA165	DIODE	1	
D6006		MA165	DIODE	1	
D6007		MA165	DIODE	1	
D6009		MA165	DIODE	1	
D6010		MA165	DIODE	1	
D6011		MA165	DIODE	1	
D6012		MA165	DIODE	1	
D6014		MA165	DIODE	1	
D6017		11ES1	DIODE	1	
D6018		MA4056M	DIODE	1	
D6019		MA4150M	DIODE	1	
D6020		MA4110M	DIODE	1	
D6021		MA165	DIODE	1	
D6022		MA165	DIODE	1	
D6023		MA165	DIODE	1	
D6024		MA165	DIODE	1	
D6028		MA165	DIODE	1	
D6030		MA165	DIODE	1	
D6031		MA165	DIODE	1	
D6032		MA165	DIODE	1	
D6051		MA165	DIODE	1	
D6052		MA165	DIODE	1	
D6053		MA165	DIODE	1	
D6056		MA165	DIODE	1	
D6057		MA700	DIODE	1	
D7550		MA165	DIODE	1	
D7551		MA165	DIODE	1	
D7553		MA27WB	DIODE	1	
D7554		LN28WP.VT	LED	1	
D7558		MA165	DIODE	1	
D7559		MA165	DIODE	1	
D7560		MA165	DIODE	1	
D7563		MA165	DIODE	1	
D7564		MA165	DIODE	1	
			DELAY LINES		
DL301		VLD0077	DELAY LINE	1	
DL801		VLD0072	DELAY LINE	1	
DL3701		VLD0090	DELAY LINE	1	
			FILTERS		
FL301		VLF0472	FILTER	1	
FL801		VLF0330	FILTER	1	
FL802		ELB4K052	FILTER	1	
FL3801		VLF0478	FILTER	1	
FL3802		ELXTS470GA	FILTER	1	
FL4001		VLF0332	FILTER	1	
			INTEGRATED CIRCUITS		
IC201		UPD6160CA509	IC	1	
IC202		MN15311VJH	IC	1	
IC203		UPC358C	IC	1	
IC301		VEFY013	FIC	1	
IC451		MN6562	IC	1	
IC452		M5201L	IC	1	
IC801		VEFC012	FIC	1	
IC2001		BA6430S	IC	1	
IC2801		BA6305	IC	1	
IC2802		UPD4013BC	IC	1	
IC2803		AN6914	IC	1	
IC2804		UPC358C	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC3701		AN3492K	IC	1	
IC3702		UPD4066BC	IC	1	
IC3801		MN3801	IC	1	
IC3901		BU4066B	IC	1	
IC4001		BA7752LS	IC	1	
IC4901		UPD4052BC	IC	1	
IC4902		M51131L	IC	1	
IC4903		UPC4558C	IC	1	
IC6001		MN15362VBR	IC	1	
IC6002		UPC393C	IC	1	
IC6003		UPD4510BC	IC	1	
IC6004		MN1280	IC	1	
IC7551		AN5034	IC	1	
IC7552		AN6913	IC	1	
IC7553		UPD4066BC	IC	1	
			COILS		
L202		VLQEL05F101K	COIL 100UH	1	
L301		VLQEL05F101K	COIL 100UH	1	
L302		VLQEL05F101K	COIL 100UH	1	
L303		VLQEL05F100K	COIL 10UH	1	
L304		VLQEL05F100K	COIL 10UH	1	
L306		VLQEL05F181K	COIL 180UH	1	
L307		VLQEL05F181K	COIL 180UH	1	
L308		VLQEL05F181K	COIL 180UH	1	
L309		VLQEL05F101K	COIL 100UH	1	
L310		VLQEL05F101K	COIL 100UH	1	
L311		VLQEL05F101K	COIL 100UH	1	
L312		VLQEL05F101K	COIL 100UH	1	
L801		VLQEL05F470J	COIL 47UH	1	
L802		VLQEL05F220K	COIL 22UH	1	
L803		VLQEL05F221K	COIL 220UH	1	
L804		VLQEL05F331K	COIL 330UH	1	
L805		VLQEL05F101K	COIL 100UH	1	
L806		VLQEL05F101K	COIL 100UH	1	
L807		VLQEL05F470K	COIL 47UH	1	
L2001		VLQEL05F102K	COIL 1mH	1	
L3001		VLQEL05F101K	COIL 100UH	1	
L3002		VLQEL05F101K	COIL 100UH	1	
L3003		VLQEL05F220K	COIL 22UH	1	
L3004		VLQEL05F181K	COIL 180UH	1	
L3005		VLQEL05F150J	COIL 15UH	1	
L3006		VLQEL06F1R0K	COIL 1UH	1	
L3701		VLQEL05F150K	COIL 15UH	1	
L3702		VLQEL05F150K	COIL 15UH	1	
L3703		VLQEL05F6R8K	COIL 6.8UH	1	
L3704		VLQEL05F101K	COIL 100UH	1	
L3801		VLQEL05F101K	COIL 100UH	1	
L4001		VLQEL07F682J	COIL 6.8mH	1	
L4002		VLQEL05F471K	COIL 470UH	1	
L7551		VLQEL05F102K	COIL 1mH	1	
L7590		VLP0017	COIL	1	
			CONNECTORS		
P272		VJS1904	CONNECTOR	1	
P2001		VJP1232T	CONNECTOR (MALE) 5P	1	
P2002		VJP1932T	CONNECTOR (MALE) 15P	1	
P2801		VJP1231T	CONNECTOR (MALE) 4P	1	
P3001		VJP1235T	CONNECTOR (MALE) 8P	1	
P3002		VJP1232T	CONNECTOR (MALE) 5P	1	
P3003		VJP1231T	CONNECTOR (MALE) 4P	1	
P3004		VJP1237T	CONNECTOR (MALE) 10P	1	
P3005		VJP1230T	CONNECTOR (MALE) 3P	1	
P3006		VJP1231T	CONNECTOR (MALE) 4P	1	
P3007		VJP1229T	CONNECTOR (MALE) 2P	1	
P3701		VJP1231T	CONNECTOR (MALE) 4P	1	
P4001		VJP1233T	CONNECTOR (MALE) 6P	1	
P4003		VJS1676	CONNECTOR 28P	1	
P4004		VJP1141	CONNECTOR (MALE) 2P	1	
P4901		VJP1231T	CONNECTOR (MALE) 4P	1	
P6001		VJP1239T	CONNECTOR (MALE) 12P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
P6002		VJS1935	CONNECTOR (FEMALE) 4P	1	
P6003		VJP1931T	CONNECTOR 14P	1	
P6004		VJP1231T	CONNECTOR (MALE) 4P	1	
P6005		VJP1229T	CONNECTOR (MALE) 2P	1	
P6006		VJP1237T	CONNECTOR (MALE) 10P	1	
P7301		VJP1231T	CONNECTOR (MALE) 4P	1	
P7302		VJS1961	CONNECTOR 11P	1	
P7303		VJP1932T	CONNECTOR (MALE) 14P	1	
P7401		VJP1239T	CONNECTOR (MALE) 12P	1	
P7402		VJP1234T	CONNECTOR (MALE) 7P	1	
P7403		VJP1234T	CONNECTOR (MALE) 7P	1	
P7404		VJS1475	CONNECTOR (FEMALE) 13P	1	
			PACK PINS		
PK301		VJR0130W	PACK PIN	1	
PK302		VJR0160W	PACK PIN	1	
PK303		VJR0163W	PACK PIN	1	
PK451		VJR0161W	PACK PIN	1	
PK3901		VJR0130W	PACK PIN	1	
PK3902		VJR0130W	PACK PIN	1	
PK3903		VJR0161W	PACK PIN	1	
			TRANSISTORS		
Q201		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q202		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q203		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q204		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q205		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q206		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q207		2SC2206	TRANSISTOR	1	(B,C)
Q208		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q301		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q302		2SC2295	TRANSISTOR CHIP	1	(B,C)
Q303		2SC2295	TRANSISTOR CHIP	1	(B,C)
Q304		2SC3311	TRANSISTOR	1	
Q305		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q306		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q307		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q308		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q309		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q310		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q801		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q1101		2SC1384	TRANSISTOR	1	(R)
Q2001		2SB641	TRANSISTOR	1	(Q,R,S)
Q2002		2SD636	TRANSISTOR	1	(Q,R,S)
Q2003		2SD636	TRANSISTOR	1	(Q,R,S)
Q2004		2SD636	TRANSISTOR	1	(Q,R,S)
Q2005		2SB641	TRANSISTOR	1	(Q,R,S)
Q2801		2SD636	TRANSISTOR	1	(Q,R,S)
Q2802		2SB641	TRANSISTOR	1	(Q,R,S)
Q2803		2SD636	TRANSISTOR	1	(Q,R,S)
Q2804		2SD636	TRANSISTOR	1	(Q,R,S)
Q2805		2SD636	TRANSISTOR	1	(Q,R,S)
Q2806		2SD636	TRANSISTOR	1	(Q,R,S)
Q2807		2SD636	TRANSISTOR	1	(Q,R,S)
Q2808		2SD636	TRANSISTOR	1	(Q,R,S)
Q3001		2SB641	TRANSISTOR	1	(Q,R,S)
Q3002		2SB641	TRANSISTOR	1	(Q,R,S)
Q3003		2SD636	TRANSISTOR	1	(Q,R,S)
Q3004		2SC2206	TRANSISTOR	1	(B,C)
Q3005		2SD636	TRANSISTOR	1	(Q,R,S)
Q3051		2SB641	TRANSISTOR	1	(Q,R,S)
Q3052		2SD636	TRANSISTOR	1	(Q,R,S)
Q3054		2SC3311	TRANSISTOR	1	
Q3701		2SC2295	TRANSISTOR CHIP	1	(B,C)
Q3702		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q3703		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q3704		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q3705		2SC2295	TRANSISTOR CHIP	1	(B,C)
Q3706		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q3707		2SC2295	TRANSISTOR CHIP	1	(B,C)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q3708		2SC2295	TRANSISTOR CHIP	1	(B,C)
Q3709		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q3710		2SC2295	TRANSISTOR CHIP	1	(B,C)
Q3711		2SC2295	TRANSISTOR CHIP	1	(B,C)
Q3712		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q3713		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q3801		2SC2295	TRANSISTOR CHIP	1	(B,C)
Q3802		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q4001		2SD636	TRANSISTOR	1	(R)
Q4002		2SD958	TRANSISTOR	1	(S,T)
Q4003		2SD958	TRANSISTOR	1	(S,T)
Q4004		2SB788	TRANSISTOR	1	(R,S,T)
Q4005		2SD636	TRANSISTOR	1	(Q,R,S)
Q4006		2SD636	TRANSISTOR	1	(Q,R,S)
Q4007		2SB643	TRANSISTOR	1	(Q,R,S)
Q4010		2SD636	TRANSISTOR	1	(Q,R,S)
Q4011		2SD636	TRANSISTOR	1	(Q,R,S)
Q4901		2SD636	TRANSISTOR	1	(Q,R,S)
Q6005		2SD636	TRANSISTOR	1	(Q,R,S)
Q6006		2SB641	TRANSISTOR	1	(Q,R,S)
Q6007		2SB790	TRANSISTOR	1	(Q,R,S)
Q6008		2SB790	TRANSISTOR	1	(Q,R,S)
Q6009		2SB790	TRANSISTOR	1	(Q,R,S)
Q6010		2SB790	TRANSISTOR	1	(Q,R,S)
Q6011		2SB790	TRANSISTOR	1	(Q,R,S)
Q6015		2SD638	TRANSISTOR	1	(R,S)
Q6016		2SD1275	TRANSISTOR	1	
Q6017		2SD893	TRANSISTOR	1	
Q6018		2SD973	TRANSISTOR	1	(Q,R,S)
Q6019		2SD638	TRANSISTOR	1	(Q,R,S)
Q6099		2SC3311	TRANSISTOR	1	
Q7551		2SB644	TRANSISTOR	1	(Q,R,S)
Q7552		2SB644	TRANSISTOR	1	(Q,R,S)
Q7553		2SD636	TRANSISTOR	1	(Q,R,S)
			COMBINATION PARTS		
			(TRANSISTOR & RESISTOR)		
QR201		UN2113	TRANSISTOR-RESISTOR	1	
QR202		UN2113	TRANSISTOR-RESISTOR	1	
QR203		UN2212	TRANSISTOR-RESISTOR	1	
QR301		UN2213	TRANSISTOR-RESISTOR	1	
QR302		UN2213	TRANSISTOR-RESISTOR	1	
QR304		DTC114YK	TRANSISTOR-RESISTOR	1	
QR305		UN2213	TRANSISTOR-RESISTOR	1	
QR306		UN2213	TRANSISTOR-RESISTOR	1	
QR307		UN2213	TRANSISTOR-RESISTOR	1	
QR451		UN2213	TRANSISTOR-RESISTOR	1	
QR801		UN4213	TRANSISTOR-RESISTOR	1	
QR802		UN2213	TRANSISTOR-RESISTOR	1	
QR1101		DTC144EA	TRANSISTOR RESISTOR	1	OR UN2213
QR2001		DTA114EA	TRANSISTOR RESISTOR	1	
QR2002		DTC124EA	TRANSISTOR RESISTOR	1	OR UN2212
QR2003		DTA124EA	TRANSISTOR RESISTOR	1	
QR2004		DTC124EA	TRANSISTOR RESISTOR	1	OR UN2212
QR2005		DTC144EA	TRANSISTOR RESISTOR	1	OR UN2213
QR2007		DTC144EA	TRANSISTOR RESISTOR	1	OR UN2213
QR2008		DTC144EA	TRANSISTOR RESISTOR	1	OR UN2213
QR2801		DTC144EA	TRANSISTOR RESISTOR	1	OR UN2213
QR2802		DTC144EA	TRANSISTOR RESISTOR	1	OR UN2213
QR2803		DTC144EA	TRANSISTOR RESISTOR	1	OR UN2213
QR2804		DTC114EA	TRANSISTOR RESISTOR	1	OR UN2211
QR3001		DTA114EA	TRANSISTOR RESISTOR	1	
QR3002		DTC144EA	TRANSISTOR RESISTOR	1	OR UN2213
QR3003		DTA144EA	TRANSISTOR RESISTOR	1	
QR3004		DTC114YA	TRANSISTOR RESISTOR	1	
QR3006		DTC144EA	TRANSISTOR RESISTOR	1	OR UN2213
QR3007		DTA144EA	TRANSISTOR RESISTOR	1	OR UN1113
QR3051		DTC144EA	TRANSISTOR RESISTOR	1	OR UN2213
QR3052		DTC144EA	TRANSISTOR RESISTOR	1	OR UN2213
QR3053		DTC144EA	TRANSISTOR RESISTOR	1	OR UN2213
QR3701		UN2213	TRANSISTOR-RESISTOR	1	
QR3702		UN2213	TRANSISTOR-RESISTOR	1	
QR3703		UN2213	TRANSISTOR-RESISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR3901		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR4002		DTA144EA	TRANSISTOR RESISTOR	1	
QR4003		DTC143TA	TRANSISTOR RESISTOR	1	
QR4901		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR6001		DTC124EA	TRANSISTOR RESISTOR	1	OR UN1212
QR6002		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR6003		DTC124EA	TRANSISTOR RESISTOR	1	OR UN1212
QR6004		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR6005		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR6006		DTA114EA	TRANSISTOR RESISTOR	1	
QR6008		DTA114EA	TRANSISTOR RESISTOR	1	
QR6009		DTA114EA	TRANSISTOR RESISTOR	1	
QR6010		DTA114EA	TRANSISTOR RESISTOR	1	
QR6011		DTC124EA	TRANSISTOR RESISTOR	1	OR UN1212
QR6012		DTA144EA	TRANSISTOR RESISTOR	1	OR UN1113
QR6013		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR6051		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR6052		DTC124TA	TRANSISTOR RESISTOR	1	
QR7556		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR7557		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR7558		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR7559		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
			RESISTORS		
R201		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R202		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R203		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R204		ERJ6GMYJ221	CHIP 1/16W 220	1	
R205		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R206		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R207		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R208		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R209		ERJ6GMYJ123	CHIP 1/16W 12K	1	
R210		ERJ6GMYJ274	CHIP 1/16W 270K	1	
R211		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R212		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R213		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R214		ERJ6GMYJ224	CHIP 1/16W 220K	1	
R215		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R216		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R217		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R218		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R219		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R220		ERJ6GMYJ823	CHIP 1/16W 82K	1	
R221		ERJ6GMYJ823	CHIP 1/16W 82K	1	
R222		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R223		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R224		ERJ6GMYJ561	CHIP 1/16W 560	1	
R225		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R226		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R227		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R228		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R229		ERJ6GMYJ221	CHIP 1/16W 220	1	
R230		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R231		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R232		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R233		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R234		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R235		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R236		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R237		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R238		ERJ6GMYJ124	CHIP 1/16W 120K	1	
R239		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R240		ERJ6GMYG333	CHIP 1/16W 33K	1	
R241		ERJ6GMYJ684	CHIP 1/16W 680K	1	
R242		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R243		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R244		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R245		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R246		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R247		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R248		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R249		ERJ6GMYG472	CHIP 1/16W 4.7K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R250		ERJ6GMYJ821	CHIP 1/16W 820	1	
R251		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R252		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R253		ERDS2TJ564	CARBON 1/4W 560K	1	
R256		ERJ6GMYJ123	CHIP 1/16W 12K	1	
R257		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R258		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R259		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R260		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R262		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R263		ERDS2TJ750	CARBON 1/4W 75	1	
R264		ERDS2TJ183	CARBON 1/4W 18K	1	
R265		ERDS2TJ103	CARBON 1/4W 10K	1	
R266		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R267		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R268		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R269		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R272		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R274		ERDS2TJ103	CARBON 1/4W 10K	1	
R301		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R302		ERJ6GMYJ681	CHIP 1/16W 680	1	
R303		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R304		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R305		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R306		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R307		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R308		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R309		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R310		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R311		ERJ6GMYJ821	CHIP 1/16W 820	1	
R312		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R313		ERJ6GMYJ123	CHIP 1/16W 12K	1	
R314		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R315		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R316		EROS2CKG2702	METAL OXIDE 1/4W 27K	1	
R317		ERJ6GMYG752	CHIP 1/16W 7.5K	1	
R318		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R319		ERJ6GMYJ681	CHIP 1/16W 680	1	
R320		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R321		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R322		ERJ6GMYJ680	CHIP 1/16W 68	1	
R323		ERJ6GMYJ823	CHIP 1/16W 82K	1	
R324		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R325		ERJ6GMYJ221	CHIP 1/16W 220	1	
R326		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R327		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R328		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R329		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R330		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R331		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R332		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R333		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R334		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R335		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R336		ERJ6GMYJ184	CHIP 1/16W 180K	1	
R337		ERJ6GMYJ684	CHIP 1/16W 680K	1	
R338		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R339		ERJ6GMYJ471	CHIP 1/16W 470	1	
R340		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R341		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R451		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R452		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R453		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R454		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R455		ERJ6GMYJ474	CHIP 1/16W 470K	1	
R456		ERJ6GMYJ124	CHIP 1/16W 120K	1	
R457		ERJ6GMYJ124	CHIP 1/16W 120K	1	
R458		ERJ6GMYJ334	CHIP 1/16W 330K	1	
R459		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R460		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R461		ERJ6GMYJ124	CHIP 1/16W 120K	1	
R462		ERJ6GMYJ124	CHIP 1/16W 120K	1	
R467		ERJ6GMYJ512	CHIP 1/16W 5.1K	1	
R468		ERJ6GMYJ124	CHIP 1/16W 120K	1	
R469		ERJ6GMYJ473	CHIP 1/16W 47K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R470		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R473		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R474		ERDS2TJ473	CARBON 1/4W 47K	1	
R475		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R478		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R479		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R480		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R481		ERDS2TJ473	CARBON 1/4W 47K	1	
R801		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R802		ERJ6GMYJ271	CHIP 1/16W 270	1	
R803		ERJ6GMYJ273	CHIP 1/16W 27K	1	
R804		ERJ6GMYJ821	CHIP 1/16W 820	1	
R805		ERJ8GCYJ470	CHIP 1/8W 47	1	
R806		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R807		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R808		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R809		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R810		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R811		ERJ6GMYJ471	CHIP 1/16W 470	1	
R812		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R813		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R814		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R815		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R1101		ERDS2TJ102	CARBON 1/4W 1K	1	
R2001		ERDS2TJ330	CARBON 1/4W 33	1	
R2002		ERDS2TJ330	CARBON 1/4W 33	1	
R2003		ERDS2TJ330	CARBON 1/4W 33	1	
R2004		ERDS1TJ1R0	CARBON 1/2W 1	1	
R2005		ERDS2TJ102	CARBON 1/4W 1K	1	
R2006		EROS2CKG5101	METAL OXIDE 1/4W 5.1K	1	
R2007		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R2008		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R2009		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R2010		ERDS2TJ223	CARBON 1/4W 22K	1	
R2011		ERDS2TJ223	CARBON 1/4W 22K	1	
R2012		ERDS2TJ103	CARBON 1/4W 10K	1	
R2013		ERDS2TJ473	CARBON 1/4W 47K	1	
R2014		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R2018		ERDS2TJ330	CARBON 1/4W 33	1	
R2029		ERDS2TJ683	CARBON 1/4W 68K	1	
R2030		ERDS2TJ333	CARBON 1/4W 33K	1	
R2031		ERDS2TJ473	CARBON 1/4W 47K	1	
R2032		ERDS2TJ124	CARBON 1/4W 120K	1	
R2033		ERDS2TJ683	CARBON 1/4W 68K	1	
R2034		ERDS2TJ391	CARBON 1/4W 390	1	
R2036		ERDS2TJ124	CARBON 1/4W 120K	1	
R2037		ERDS2TJ104	CARBON 1/4W 100K	1	
R2038		ERDS2TJ223	CARBON 1/4W 22K	1	
R2040		ERDS2TJ102	CARBON 1/4W 1K	1	
R2041		ERDS2TJ102	CARBON 1/4W 1K	1	
R2042		ERDS2TJ153	CARBON 1/4W 15K	1	
R2043		ERDS2TJ822	CARBON 1/4W 8.2K	1	
R2044		ERDS2TJ822	CARBON 1/4W 8.2K	1	
R2046		ERDS2TJ333	CARBON 1/4W 33K	1	
R2050		ERDS2TJ153	CARBON 1/4W 15K	1	
R2051		ERDS2TJ681	CARBON 1/4W 680	1	
R2052		ERDS2TJ104	CARBON 1/4W 100K	1	
R2800		ERDS2TJ104	CARBON 1/4W 100K	1	
R2801		ERDS2TJ103	CARBON 1/4W 10K	1	
R2802		ERDS2TJ103	CARBON 1/4W 10K	1	
R2803		ERDS2TJ561	CARBON 1/4W 560	1	
R2804		ERDS2TJ393	CARBON 1/4W 39K	1	
R2805		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R2806		ERDS2TJ221	CARBON 1/4W 220	1	
R2807		ERDS2TJ823	CARBON 1/4W 82K	1	
R2808		ERDS2TJ103	CARBON 1/4W 10K	1	
R2809		ERDS2TJ820	CARBON 1/4W 82	1	
R2810		ERDS2TJ124	CARBON 1/4W 120K	1	
R2811		EROS2CKG1102	METAL OXIDE 1/4W 11K	1	
R2812		ERDS2TJ153	CARBON 1/4W 15K	1	
R2813		ERDS2TJ221	CARBON 1/4W 220	1	
R2814		ERDS2TJ102	CARBON 1/4W 1K	1	
R2815		ERDS2TJ473	CARBON 1/4W 47K	1	
R2816		ERDS2TJ473	CARBON 1/4W 47K	1	
R2817		ERDS2TJ223	CARBON 1/4W 22K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R2818		ERDS2TJ102	CARBON 1/4W 1K	1	
R2819		EROS2CKG1303	METAL OXIDE 1/4W 130K	1	
R2820		ERDS2TJ221	CARBON 1/4W 220	1	
R2821		ERDS2TJ103	CARBON 1/4W 10K	1	
R2822		ERDS2TJ124	CARBON 1/4W 120K	1	
R2823		ERDS2TJ273	CARBON 1/4W 27K	1	
R2824		ERDS2TJ154	CARBON 1/4W 150K	1	
R2825		ERDS2TJ102	CARBON 1/4W 1K	1	
R2826		ERDS2TJ154	CARBON 1/4W 150K	1	
R2827		ERDS2TJ153	CARBON 1/4W 15K	1	
R2828		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R2829		ERDS2TJ681	CARBON 1/4W 680	1	
R2830		ERDS2TJ683	CARBON 1/4W 68K	1	
R2831		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R2832		ERDS2TJ822	CARBON 1/4W 8.2K	1	
R2833		ERDS2TJ103	CARBON 1/4W 10K	1	
R2834		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R2835		ERDS2TJ105	CARBON 1/4W 1000K	1	
R2836		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R2837		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R2838		ERDS2TJ223	CARBON 1/4W 22K	1	
R2839		ERDS2TJ102	CARBON 1/4W 1K	1	
R2840		ERDS2TJ102	CARBON 1/4W 1K	1	
R3001		ERDS2TJ471	CARBON 1/4W 470	1	
R3002		ERDS2TJ471	CARBON 1/4W 470	1	
R3004		ERDS2TJ103	CARBON 1/4W 10K	1	
R3006		ERDS2TJ102	CARBON 1/4W 1K	1	
R3007		ERDS2TJ561	CARBON 1/4W 560	1	
R3008		ERDS2TJ102	CARBON 1/4W 1K	1	
R3009		ERDS2TJ221	CARBON 1/4W 220	1	
R3011		ERDS2TJ102	CARBON 1/4W 1K	1	
R3012		ERDS2TJ181	CARBON 1/4W 180	1	
R3013		ERDS2TJ394	CARBON 1/4W 390K	1	
R3014		ERDS2TJ224	CARBON 1/4W 220K	1	
R3015		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R3031		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R3032		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R3033		ERQ12HJ2R7	FUSE 1/2W 2.7	1	<!>
R3051		ERDS2TJ103	CARBON 1/4W 10K	1	
R3052		ERDS2TJ102	CARBON 1/4W 1K	1	
R3053		ERDS2TJ102	CARBON 1/4W 1K	1	
R3054		ERDS2TJ103	CARBON 1/4W 10K	1	
R3055		ERDS2TJ471	CARBON 1/4W 470	1	
R3056		ERDS2TJ103	CARBON 1/4W 10K	1	
R3701		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R3702		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R3703		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R3704		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R3705		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R3706		ERJ6GMYJ221	CHIP 1/16W 220	1	
R3708		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R3709		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R3710		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R3711		ERJ6GMYJ681	CHIP 1/16W 680	1	
R3712		ERJ6GMYJ821	CHIP 1/16W 820	1	
R3713		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R3714		ERJ6GMYJ471	CHIP 1/16W 470	1	
R3715		ERJ6GMYJ391	CHIP 1/16W 390	1	
R3716		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R3717		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R3718		ERJ6GMYJ221	CHIP 1/16W 220	1	
R3719		ERJ6GMYJ681	CHIP 1/16W 680	1	
R3720		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R3721		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R3722		ERJ6GMYJ561	CHIP 1/16W 560	1	
R3723		ERJ6GMYJ561	CHIP 1/16W 560	1	
R3724		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R3725		ERJ6GMYJ123	CHIP 1/16W 12K	1	
R3726		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R3727		ERJ6GMYJ471	CHIP 1/16W 470	1	
R3728		ERJ6GMYJ471	CHIP 1/16W 470	1	
R3729		ERJ6GMYJ471	CHIP 1/16W 470	1	
R3730		ERJ6GMYJ471	CHIP 1/16W 470	1	
R3731		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R3732		ERJ6GMYJ331	CHIP 1/16W 330	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3733		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R3734		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R3735		ERJ6GMYJ471	CHIP 1/16W 470	1	
R3736		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R3737		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R3738		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R3739		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R3740		ERJ6GMYJ561	CHIP 1/16W 560	1	
R3741		ERJ6GMYJ391	CHIP 1/16W 390	1	
R3742		ERJ6GMYJ183	CHIP 1/16W 18K	1	
R3743		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R3744		ERJ6GMYJ561	CHIP 1/16W 560	1	
R3745		ERJ6GMYJ273	CHIP 1/16W 27K	1	
R3746		ERJ6GMYJ273	CHIP 1/16W 27K	1	
R3747		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R3748		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R3749		ERJ6GMYJ681	CHIP 1/16W 680	1	
R3750		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R3751		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R3801		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R3802		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R3803		ERJ6GMYJ331	CHIP 1/16W 330	1	
R3804		ERJ6GMYJ391	CHIP 1/16W 390	1	
R3805		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R3806		ERJ6GMYJ221	CHIP 1/16W 220	1	
R3807		ERDS2TJ103	CARBON 1/4W 10K	1	
R3808		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R3901		ERDS2TJ750	CARBON 1/4W 75	1	
R3902		ERDS2TJ680	CARBON 1/4W 68	1	
R3903		ERDS2TJ680	CARBON 1/4W 68	1	
R3904		ERDS2TJ750	CARBON 1/4W 75	1	
R3905		ERDS2TJ750	CARBON 1/4W 75	1	
R3906		ERDS2TJ473	CARBON 1/4W 47K	1	
R3907		ERDS2TJ103	CARBON 1/4W 10K	1	
R3908		ERDS2TJ103	CARBON 1/4W 10K	1	
R3909		ERDS2TJ102	CARBON 1/4W 1K	1	
R3910		ERDS2TJ103	CARBON 1/4W 10K	1	
R3911		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R4001		ERDS2TJ100	CARBON 1/4W 10	1	
R4002		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R4004		ERDS2TJ473	CARBON 1/4W 47K	1	
R4005		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R4006		ERDS2TJ223	CARBON 1/4W 22K	1	
R4009		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R4010		ERDS2TJ473	CARBON 1/4W 47K	1	
R4011		ERDS2TJ334	CARBON 1/4W 330K	1	
R4012		ERDS2TJ331	CARBON 1/4W 330	1	
R4013		ERDS2TJ822	CARBON 1/4W 8.2K	1	
R4014		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R4015		ERDS2TJ105	CARBON 1/4W 1000K	1	
R4016		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R4017		ERDS2TJ223	CARBON 1/4W 22K	1	
R4018		ERDS2TJ821	CARBON 1/4W 820	1	
R4019		ERDS2TJ392	CARBON 1/4W 3.9K	1	
R4020		ERDS2TJ273	CARBON 1/4W 27K	1	
R4021		ERDS2TJ470	CARBON 1/4W 47	1	
R4022		ERDS2TJ123	CARBON 1/4W 12K	1	
R4023		ERDS2TJ153	CARBON 1/4W 15K	1	
R4024		ERDS2TJ561	CARBON 1/4W 560	1	
R4025		ERDS2TJ221	CARBON 1/4W 220	1	
R4026		ERDS2TJ101	CARBON 1/4W 100	1	
R4027		ERDS2TJ561	CARBON 1/4W 560	1	
R4028		ERDS2TJ103	CARBON 1/4W 10K	1	
R4030		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R4031		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R4032		ERDS2TJ683	CARBON 1/4W 68K	1	
R4033		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R4034		ERDS2TJ823	CARBON 1/4W 82K	1	
R4035		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R4036		ERDS2TJ223	CARBON 1/4W 22K	1	
R4037		ERDS2TJ104	CARBON 1/4W 100K	1	
R4050		ERDS2TJ561	CARBON 1/4W 560	1	
R4051		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R4052		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R4901		ERDS2TJ821	CARBON 1/4W 820	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4902		ERDS2TJ821	CARBON 1/4W 820	1	
R4903		ERDS2TJ821	CARBON 1/4W 820	1	
R4904		ERDS2TJ821	CARBON 1/4W 820	1	
R4905		ERDS2TJ104	CARBON 1/4W 100K	1	
R4906		ERDS2TJ104	CARBON 1/4W 100K	1	
R4907		ERDS2TJ333	CARBON 1/4W 33K	1	
R4908		ERDS2TJ563	CARBON 1/4W 56K	1	
R4909		ERDS2TJ102	CARBON 1/4W 1K	1	
R4910		ERDS2TJ104	CARBON 1/4W 100K	1	
R4911		ERDS2TJ104	CARBON 1/4W 100K	1	
R4912		ERDS2TJ104	CARBON 1/4W 100K	1	
R4913		ERDS2TJ104	CARBON 1/4W 100K	1	
R4914		ERDS2TJ104	CARBON 1/4W 100K	1	
R4915		ERDS2TJ333	CARBON 1/4W 33K	1	
R4916		ERDS2TJ563	CARBON 1/4W 56K	1	
R4917		ERDS2TJ104	CARBON 1/4W 100K	1	
R4918		ERDS2TJ104	CARBON 1/4W 100K	1	
R4919		ERDS2TJ104	CARBON 1/4W 100K	1	
R4920		ERDS2TJ103	CARBON 1/4W 10K	1	
R4921		EROS2CKG9101	METAL OXIDE 1/4W 9.1K	1	
R4922		ERDS2TJ333	CARBON 1/4W 33K	1	
R4923		ERDS2TJ333	CARBON 1/4W 33K	1	
R4924		ERDS2TJ103	CARBON 1/4W 10K	1	
R4925		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R4926		ERDS2TJ103	CARBON 1/4W 10K	1	
R4927		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R4928		ERDS2TJ473	CARBON 1/4W 47K	1	
R4929		ERDS2TJ104	CARBON 1/4W 100K	1	
R4932		ERDS2TJ473	CARBON 1/4W 47K	1	
R4933		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R4934		EROS2CKG5100	METAL OXIDE 1/4W 510	1	
R4935		EROS2CKG1501	METAL OXIDE 1/4W 1.5K	1	
R4936		ERDS2TJ683	CARBON 1/4W 68K	1	
R4937		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R4938		ERDS2TJ563	CARBON 1/4W 56K	1	
R6001		ERDS1TJ470	CARBON 1/2W 47	1	
R6002		ERDS2TJ473	CARBON 1/4W 47K	1	
R6003		ERDS2TJ561	CARBON 1/4W 560	1	
R6005		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R6006		ERD2FCG220	CARBON 2W 22	1	<!>
R6007		ERDS2TJ122	CARBON 1/4W 1.2K	1	
R6008		ERDS2TJ181	CARBON 1/4W 180	1	
R6009		ERDS2TJ561	CARBON 1/4W 560	1	
R6010		ERDS2TJ102	CARBON 1/4W 1K	1	
R6011		ERDS2TJ221	CARBON 1/4W 220	1	
R6016		ERDS2TJ223	CARBON 1/4W 22K	1	
R6017		ERDS2TJ223	CARBON 1/4W 22K	1	
R6018		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R6019		ERDS2TJ153	CARBON 1/4W 15K	1	
R6020		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R6021		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R6022		ERDS2TJ223	CARBON 1/4W 22K	1	
R6023		ERDS2TJ683	CARBON 1/4W 68K	1	
R6024		ERDS2TJ223	CARBON 1/4W 22K	1	
R6025		ERDS2TJ824	CARBON 1/4W 820K	1	
R6026		ERDS2TJ105	CARBON 1/4W 1000K	1	
R6027		ERDS2TJ223	CARBON 1/4W 22K	1	
R6028		ERDS2TJ184	CARBON 1/4W 180K	1	
R6029		ERDS2TJ561	CARBON 1/4W 560	1	
R6030		ERDS2TJ153	CARBON 1/4W 15K	1	
R6031		ERDS2TJ153	CARBON 1/4W 15K	1	
R6032		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R6033		ERDS2TJ333	CARBON 1/4W 33K	1	
R6034		ERDS2TJ333	CARBON 1/4W 33K	1	
R6035		ERDS2TJ101	CARBON 1/4W 100	1	
R6036		ERDS2TJ101	CARBON 1/4W 100	1	
R6037		ERDS2TJ101	CARBON 1/4W 100	1	
R6038		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R6039		ERDS2TJ103	CARBON 1/4W 10K	1	
R6040		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R6041		ERDS2TJ391	CARBON 1/4W 390	1	
R6042		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R6043		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R6044		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R6045		ERDS2TJ562	CARBON 1/4W 5.6K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6046		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R6047		ERDS2TJ681	CARBON 1/4W 680	1	
R6048		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R6049		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R6050		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R6051		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R6052		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R6053		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R6054		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R6055		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R6065		ERDS2TJ101	CARBON 1/4W 100	1	
R6066		ERDS2TJ101	CARBON 1/4W 100	1	
R6067		ERDS2TJ101	CARBON 1/4W 100	1	
R6068		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R6069		ERDS2TJ103	CARBON 1/4W 10K	1	
R6070		ERDS2TJ471	CARBON 1/4W 470	1	
R6071		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R6072		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R6073		ERDS2TJ391	CARBON 1/4W 390	1	
R6074		ERDS2TJ561	CARBON 1/4W 560	1	
R6075		ERG2SJ180	METAL OXIDE 2W 18	1	
R6076		ERDS2TJ181	CARBON 1/4W 180	1	
R6077		ERDS2TJ271	CARBON 1/4W 270	1	
R6078		ERDS2TJ271	CARBON 1/4W 270	1	
R6079		ERDS2TJ103	CARBON 1/4W 10K	1	
R6080		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R6081		ERDS2TJ103	CARBON 1/4W 10K	1	
R6083		ERDS2TJ104	CARBON 1/4W 100K	1	
R6084		ERDS2TJ473	CARBON 1/4W 47K	1	
R6093		ERDS2TJ103	CARBON 1/4W 10K	1	
R6094		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R6095		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R6096		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R6099		ERDS2TJ473	CARBON 1/4W 47K	1	
R6101		ERDS2TJ103	CARBON 1/4W 10K	1	
R6103		ERDS2TJ102	CARBON 1/4W 1K	1	
R6104		ERDS2TJ821	CARBON 1/4W 820	1	
R7551		ERDS2TJ104	CARBON 1/4W 100K	1	
R7553		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7554		ERDS2TJ102	CARBON 1/4W 1K	1	
R7555		ERDS2TJ102	CARBON 1/4W 1K	1	
R7556		ERDS2TJ473	CARBON 1/4W 47K	1	
R7557		ERDS2TJ124	CARBON 1/4W 120K	1	
R7558		ERDS2TJ104	CARBON 1/4W 100K	1	
R7559		ERDS2TJ473	CARBON 1/4W 47K	1	
R7560		ERDS2TJ473	CARBON 1/4W 47K	1	
R7561		ERDS2TJ223	CARBON 1/4W 22K	1	
R7562		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7565		ERDS2TJ102	CARBON 1/4W 1K	1	
R7568		ERDS2TJ103	CARBON 1/4W 10K	1	
R7572		ERDS2TJ473	CARBON 1/4W 47K	1	
R7573		ERDS2TJ820	CARBON 1/4W 82	1	
R7574		ERDS2TJ333	CARBON 1/4W 33K	1	
R7575		ERDS2TJ273	CARBON 1/4W 27K	1	
R7576		ERDS2TJ390	CARBON 1/4W 39	1	
R7577		ERDS2TJ103	CARBON 1/4W 10K	1	
R7578		ERDS2TJ103	CARBON 1/4W 10K	1	
R7579		ERDS2TJ103	CARBON 1/4W 10K	1	
R7580		ERDS2TJ123	CARBON 1/4W 12K	1	
R7581		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R7582		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R7583		ERDS2TJ473	CARBON 1/4W 47K	1	
R7584		ERDS2TJ333	CARBON 1/4W 33K	1	
R7585		ERDS2TJ473	CARBON 1/4W 47K	1	
R7586		ERDS2TJ563	CARBON 1/4W 56K	1	
R7589		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7590		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7591		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7592		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7593		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7595		ERDS2TJ181	CARBON 1/4W 180	1	
			SWITCH		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
SW4901		VES0334	SWITCH	1	
			TRANSFORMER		
T4001		EIQ7QF003B	IF TRANSFORMER	1	
			VARIABLE RESISTORS		
VR301		EVN60AA00B52	VARIABLE 500	1	
VR2001		EVND3AA00B54	VARIABLE 50K	1	
VR2002		EVND3AA00B54	VARIABLE 50K	1	
VR2006		EVND3AA00B54	VARIABLE 50K	1	
VR2009		EVL51MA00B25	VARIABLE 200K	1	
VR2010		EVL51MA00B25	VARIABLE 200K	1	
VR2011		EVND3AA00B15	VARIABLE 100K	1	
VR2013		EVN38CA00B23	VARIABLE 2K	1	
VR3701		EVN38CA00B52	VARIABLE 500	1	
VR3702		EVN38CA00B13	VARIABLE 1K	1	
VR3703		EVND3AA00B52	VARIABLE 500	1	
VR3704		EVND3AA00B22	VARIABLE 200	1	
VR3705		EVN38CA00B24	VARIABLE 20K	1	
VR3706		EVND3AA00B24	VARIABLE 20K	1	
VR3707		EVND3AA00B52	VARIABLE 500	1	
VR3801		EVN38CA00B13	VARIABLE 1K	1	
VR4001		EVND3AA00B14	VARIABLE 10K	1	
VR4002		EVND3AA00B25	VARIABLE 200K	1	
VR4003		EVND3AA00B53	VARIABLE 5K	1	
VR4004		EVND3AA00B53	VARIABLE 5K	1	
VR4510		EVN38CA00B15	VARIABLE 100K	1	
VR4901		EVNK0AA00B13	VARIABLE 1K	1	
VR4902		EVN32CA00B23	VARIABLE 2K	1	
VR7502		EVN32CA00B14	VARIABLE 10K	1	
			CRYSTAL OSCILLATORS		
X201		VSX0060	CRYSTAL OSCILLATOR	1	
X801		VSX0160	CRYSTAL OSCILLATOR	1	
X3801		VSX0197	CRYSTAL OSCILLATOR	1	
X6001		EF0FC3584A5	CRYSTAL OSCILLATOR	1	
X7504		EFBAA40D101	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VMC0075	HEATSINK FIX SPRING	1	FOR IC2001
		VSC1068	HEATSINK	1	
		VSC1446	HEATSINK	1	
		VSC1689	HEATSINK	1	FOR IC2001
		VMZ0960	HEATSINK BARRIER	1	FOR IC2001
		VJF0215	BINDER	1	
		VJF0045	WIRE SADDLE	1	
		VJR0190	PACK PIN	1	(FOR SERVO PACK)
		VJR0189	PACK PIN	1	(FOR SERVO PACK)
		VJF0236	C.B.A. SUPPORT	1	(FOR SERVO PACK)
		VJR0277	PACK PIN	1	(FOR SUB SERVO PACK)
		VSC1954	SHIELD CASE	1	(FOR HQ PACK)
		VSC1730	SHIELD CASE(TOP)	1	(FOR CCD PACK)
		VSC1863	SHIELD CASE(MAIN)	1	(FOR CCD PACK)
		VJR0188	PACK PIN	1	(FOR CH SELECT PACK)
		VJR0275	PACK PIN	1	(FOR CH SELECT PACK)
	■	VEP03396C	DIGITAL C.B.A.		
			CAPACITORS		
C9001		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9002		ECEA1CK100	ELECTROLYTIC 16V 10U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C9003		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9004		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9005		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C9006		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9007		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9008		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C9009		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9010		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9011		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9012		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9013		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9014		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9015		ECEA0JK330	ELECTROLYTIC 6.3V 33U	1	
C9016		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C9017		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9018		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9019		ECUX1H101JCN	CHIP 50V 100P	1	
C9020		ECUX1H221JCN	CHIP 50V 220P	1	
C9021		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9022		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9023		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9024		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C9025		ECEA0JK101	ELECTROLYTIC 6.3V 100U	1	
C9026		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C9027		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C9028		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9029		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C9030		ECEA0JK330	ELECTROLYTIC 6.3V 33U	1	
C9031		ECUX1H101JCN	CHIP 50V 100P	1	
C9032		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C9033		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C9034		ECUX1H070DCN	CHIP 50V 7P	1	
C9035		ECRHA030E41	TRIMER 30P	1	
C9036		ECUX1H330JCN	CHIP 50V 33P	1	
C9037		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C9038		ECEA0JK330	ELECTROLYTIC 6.3V 33U	1	
C9039		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C9040		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C9041		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C9042		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C9043		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C9044		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9045		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9046		ECUX1H472KBN	CHIP 50V 4700P	1	
C9047		ECUX1E473ZFN	CHIP 25V 0.047U	1	
C9048		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9049		ECUX1H470JCN	CHIP 50V 47P	1	
C9051		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9052		ECUX1H390JCN	CHIP 50V 39P	1	
C9053		ECUX1H390JCN	CHIP 50V 39P	1	
C9054		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9055		ECUX1H390JCN	CHIP 50V 39P	1	
C9056		ECUX1H221JN	CHIP 50V 220P	1	
C9057		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9058		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C9059		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C9060		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C9061		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9062		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C9063		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9064		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C9065		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C9066		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C9067		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9068		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C9069		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9070		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C9071		ECUX1H680JCN	CHIP 50V 68P	1	
C9072		ECUX1H680JCN	CHIP 50V 68P	1	
C9073		ECUX1H680JCN	CHIP 50V 68P	1	
C9074		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C9075		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C9076		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C9077		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C9078		ECUX1E104ZFN	CHIP 25V 0.1U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C9079		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C9080		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C9081		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C9082		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C9083		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C9084		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C9085		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9086		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9087		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9088		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9089		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C9090		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
			DIODES		
D9001		MA221	DIODE	1	
D9002		MA221	DIODE	1	
D9003		MA221	DIODE	1	
D9004		MA221	DIODE	1	
D9006		MA221	DIODE	1	
D9007		MA221	DIODE	1	
D9008		MA221	DIODE	1	
			FILTERS		
FL9001		ELXTS101GA	FILTER	1	
FL9002		ELXTS101GA	FILTER	1	
FL9003		ELXTS101GA	FILTER	1	
FL9004		ELXTS101GA	FILTER	1	
FL9005		ELXTS101GA	FILTER	1	
FL9006		ELXTS101GA	FILTER	1	
FL9007		ELXTS101GA	FILTER	1	
FL9008		ELXTS103EA	FILTER	1	
FL9009		ELXTS103EA	FILTER	1	
FL9010		ELXTS103EA	FILTER	1	
FL9011		ELXTS101GA	FILTER	1	
FL9012		VLF0523	FILTER	1	
FL9013		VLF0523	FILTER	1	
FL9014		VLF0523	FILTER	1	
FL9015		VLF0523	FILTER	1	
FL9016		VLF0526	FILTER	1	
FL9017		VLF0526	FILTER	1	
FL9018		ELXTS101GA	FILTER	1	
FL9019		ELXTS101GA	FILTER	1	
FL9020		ELXTS101GA	FILTER	1	
FL9021		ELXTS101GA	FILTER	1	
FL9022		VLF0523	FILTER	1	
FL9023		ELXTS103EA	FILTER	1	
FL9024		ELXTS101GA	FILTER	1	
FL9025		ELXTS103EA	FILTER	1	
FL9026		VLF0523	FILTER	1	
FL9027		VLF0523	FILTER	1	
FL9028		VLF0523	FILTER	1	
FL9029		VLF0523	FILTER	1	
FL9030		ELXTS103EA	FILTER	1	
FL9031		ELXTS103EA	FILTER	1	
FL9032		ELXTS103EA	FILTER	1	
FL9033		ELXTS103EA	FILTER	1	
FL9034		ELXTS101GA	FILTER	1	
FL9036		VLF0523	FILTER	1	
			INTEGRATED CIRCUITS		
IC9001		UPD4066BS	IC	1	
IC9002		AN6914S	IC	1	
IC9003		MN1280	IC	1	
IC9004		MN15542VEV	IC	1	
IC9005		MN1280	IC	1	
IC9006		MN3106	IC	1	
IC9007		MN74HC00	IC	1	
IC9008		MN74HC74S	IC	1	
IC9009		MN52040VZF	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC9010		MN52060VZE	IC	1	
IC9011		MB40576P	IC	1	
IC9012		TD6713P	IC	1	
IC9013		MN41432	IC	1	
IC9014		MN41432	IC	1	
IC9015		MN41432	IC	1	
IC9016		MN41432	IC	1	
IC9017		MN41432	IC	1	
IC9018		MN41432	IC	1	
IC9019		MN41432	IC	1	
IC9020		MN41432	IC	1	
IC9021		MN41432	IC	1	
			COILS		
L9001		VLP0053	COIL	1	
L9002		VLP0053	COIL	1	
L9003		VLP0053	COIL	1	
L9004		VLP0054	COIL	1	
L9005		VLP0054	COIL	1	
L9006		VLP0053	COIL	1	
L9007		VLQ0188K220K	COIL	1	
L9008		VLQ0188M2R2K	COIL	1	
L9009		VLQ0188M2R2K	COIL	1	
L9011		VLQ0188M2R2K	COIL	1	
L9013		VLQ0188M2R2K	COIL	1	
L9014		VLQ0188M2R2K	COIL	1	
L9015		VLQ0188M2R2K	COIL	1	
L9016		VLQ0188K470K	COIL	1	
L9017		VLQ0188K470K	COIL	1	
L9018		VLP0053	COIL	1	
			CONNECTORS		
P9001		VJP1142	CONNECTOR (MALE) 3P	1	
P9002		VJP1231T	CONNECTOR (MALE) 4P	1	
P9003		VJP1237T	CONNECTOR (MALE) 10P	1	
P9004		VJP1236T	CONNECTOR (MALE) 9P	1	
P9005		VJP1230T	CONNECTOR (MALE) 3P	1	
P9006		VJP1233T	CONNECTOR (MALE) 6P	1	
			TRANSISTORS		
Q9001		2SD601	TRANSISTOR CHIP	1	(Q,R)
Q9002		2SD601	TRANSISTOR CHIP	1	(Q,R)
Q9003		2SB709	TRANSISTOR CHIP	1	(Q,R)
Q9004		2SB709	TRANSISTOR CHIP	1	(Q,R)
Q9005		2SD601	TRANSISTOR CHIP	1	(Q,R)
Q9006		2SB709	TRANSISTOR CHIP	1	(Q,R)
Q9007		2SB709	TRANSISTOR CHIP	1	(Q,R)
Q9008		2SD601	TRANSISTOR CHIP	1	(Q,R)
Q9009		2SD601	TRANSISTOR CHIP	1	(Q,R)
Q9010		2SB709	TRANSISTOR CHIP	1	(Q,R)
Q9011		2SD601	TRANSISTOR CHIP	1	(Q,R)
Q9012		2SD601	TRANSISTOR CHIP	1	(Q,R)
Q9013		2SD601	TRANSISTOR CHIP	1	(Q,R)
Q9014		2SD601	TRANSISTOR CHIP	1	(Q,R)
Q9015		2SD601	TRANSISTOR CHIP	1	(Q,R)
Q9016		2SB709	TRANSISTOR CHIP	1	(Q,R)
Q9017		2SB709	TRANSISTOR CHIP	1	(Q,R)
Q9018		2SD601	TRANSISTOR CHIP	1	(Q,R)
			COMBINATION PARTS		
			(TRANSISTOR & RESISTOR)		
QR9001		UN2213	TRANSISTOR-RESISTOR	1	
QR9002		UN2213	TRANSISTOR-RESISTOR	1	
QR9003		UN2213	TRANSISTOR-RESISTOR	1	
QR9004		UN2213	TRANSISTOR-RESISTOR	1	
QR9005		UN2213	TRANSISTOR-RESISTOR	1	
QR9006		UN2213	TRANSISTOR-RESISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR9007		UN2111	TRANSISTOR-RESISTOR	1	
QR9008		UN2111	TRANSISTOR-RESISTOR	1	
QR9009		UN2213	TRANSISTOR-RESISTOR	1	
QR9010		UN2213	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R9001		ERJ6GMYJ471	CHIP 1/16W 470	1	
R9002		ERJ6GMYJ471	CHIP 1/16W 470	1	
R9003		ERJ6GMYJ471	CHIP 1/16W 470	1	
R9004		ERJ6GMYJ101	CHIP 1/16W 100	1	
R9005		ERJ6GMYJ101	CHIP 1/16W 100	1	
R9006		ERJ6GMYJ101	CHIP 1/16W 100	1	
R9007		ERJ6GMYJ101	CHIP 1/16W 100	1	
R9008		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R9009		ERJ6GMYJ471	CHIP 1/16W 470	1	
R9010		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R9011		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R9012		ERJ6GMYJ101	CHIP 1/16W 100	1	
R9013		ERJ6GMYJ101	CHIP 1/16W 100	1	
R9014		ERJ6GMYJ101	CHIP 1/16W 100	1	
R9015		ERJ6GMYJ101	CHIP 1/16W 100	1	
R9016		ERJ6GMYJ101	CHIP 1/16W 100	1	
R9017		ERJ6GMYJ101	CHIP 1/16W 100	1	
R9018		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R9019		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R9020		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R9021		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R9022		ERJ6GMYJ331	CHIP 1/16W 330	1	
R9023		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R9024		ERJ6GMYJ151	CHIP 1/16W 150	1	
R9025		ERJ6GMYJ330	CHIP 1/16W 33	1	
R9026		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R9027		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R9028		ERJ6GMYJ471	CHIP 1/16W 470	1	
R9029		ERJ6GMYJ471	CHIP 1/16W 470	1	
R9030		ERJ6GMYJ183	CHIP 1/16W 18K	1	
R9031		ERJ6GMYJ183	CHIP 1/16W 18K	1	
R9032		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R9033		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R9034		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R9035		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R9036		ERJ6GMYJ471	CHIP 1/16W 470	1	
R9039		ERJ6GMYJ224	CHIP 1/16W 220K	1	
R9040		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R9041		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R9042		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R9043		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R9044		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R9045		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R9046		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R9047		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R9048		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R9049		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R9050		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R9051		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R9052		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R9053		ERJ6GMYJ821	CHIP 1/16W 820	1	
R9054		ERJ6GMYJ681	CHIP 1/16W 680	1	
R9055		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R9056		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R9058		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R9059		ERDS2TJ102	CARBON 1/4W 1K	1	
R9060		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R9061		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R9062		ERDS1VJ470	CARBON 1/2W 47	1	
R9063		ERJ6GMYJ331	CHIP 1/16W 330	1	
R9064		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R9065		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R9066		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R9067		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R9068		ERJ6GMYJ183	CHIP 1/16W 18K	1	
R9069		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R9070		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R9071		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R9072		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R9073		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R9074		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R9075		ERJ6GMYJ821	CHIP 1/16W 820	1	
R9076		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R9077		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R9078		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R9079		ERJ6GMYJ101	CHIP 1/16W 100	1	
R9080		ERJ6GMYJ331	CHIP 1/16W 330	1	
R9081		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R9082		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R9083		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R9084		ERDS2TJ561	CARBON 1/4W 560	1	
R9085		ERDS2TJ121	CARBON 1/4W 120	1	
R9086		ERJ6GMYJ471	CHIP 1/16W 470	1	
R9087		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R9088		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R9089		ERJ6GMYJ471	CHIP 1/16W 470	1	
R9090		ERJ6GMYJ220	CHIP 1/16W 22	1	
R9091		ERJ6GMYJ220	CHIP 1/16W 22	1	
R9092		ERJ6GMYJ220	CHIP 1/16W 22	1	
R9093		ERJ6GMYJ220	CHIP 1/16W 22	1	
R9094		ERJ6GMYJ220	CHIP 1/16W 22	1	
R9095		ERJ6GMYJ220	CHIP 1/16W 22	1	
R9096		ERJ6GMYJ220	CHIP 1/16W 22	1	
R9097		ERJ6GMYJ220	CHIP 1/16W 22	1	
R9098		ERJ6GMYJ220	CHIP 1/16W 22	1	
R9099		ERJ6GMYJ220	CHIP 1/16W 22	1	
R9100		ERJ6GMYJ220	CHIP 1/16W 22	1	
R9101		ERJ6GMYJ220	CHIP 1/16W 22	1	
R9102		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R9103		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R9104		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R9105		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R9106		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R9107		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R9108		ERJ6GMYJ821	CHIP 1/16W 820	1	
			VARIABLE RESISTOR		
VR9001		EVN38CA00B13	VARIABLE 1K	1	
			CRYSTAL OSCILLATOR		
X9001		VSX0154	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VSC1895	SHIELD CASE (MAIN)	1	
		VSC1896	SHIELD CASE (BOTTOM)	1	
		VSC1966	SHIELD CASE PARTITION	1	
		VSC1967	SHIELD CASE PARTITION	1	
	■	VEP04200A	HD AUDIO C.B.A.		
			CAPACITORS		
C4501		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C4502		ECQB1H821JH	MYLAR 50V 820P	1	
C4505		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4506		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C4507		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C4511		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4512		ECQB1H103JH	MYLAR 50V 0.01U	1	
C4513		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4514		ECEA25Z4R7	ELECTROLYTIC 25V 4.7U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4515		ECQB1H223JH	MYLAR 50V 0.022U	1	
C4516		ECEA16Z10	ELECTROLYTIC 16V 10U	1	
C4517		ECQV1H473JZ	MYLAR 50V 0.047U	1	
C4518		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C4519		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C4521		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C4524		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C4526		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4527		ECQB1H821JH	MYLAR 50V 820P	1	
C4530		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4531		ECQB1H103JH	MYLAR 50V 0.01U	1	
C4532		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4533		ECEA25Z4R7	ELECTROLYTIC 25V 4.7U	1	
C4534		ECQB1H223JH	MYLAR 50V 0.022U	1	
C4535		ECCF1H100DC	CERAMIC 50V 10P	1	
C4536		ECEA16Z10	ELECTROLYTIC 16V 10U	1	
C4537		ECQV1H473JZ	MYLAR 50V 0.047U	1	
C4538		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C4539		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C4540		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C4541		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C4542		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4543		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4544		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4545		ECKF1H331KB	CERAMIC 50V 330P	1	
C4546		ECQB1H102KH	MYLAR 50V 1000P	1	
C4547		ECEA1EKN3R3	ELECTROLYTIC 25V 3.3U	1	
C4548		ECCF1H330J	CERAMIC 50V 33P	1	
C4549		ECCF1H101JC	CERAMIC 50V 100P	1	
C4550		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4551		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4552		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4553		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C4554		ECEA1AK330	ELECTROLYTIC 10V 33U	1	
C4555		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4556		ECQB1H102KH	MYLAR 50V 1000P	1	
C4557		ECEA1EKN3R3	ELECTROLYTIC 25V 3.3U	1	
C4558		ECKF1H331KB	CERAMIC 50V 330P	1	
C4559		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4560		ECCF1H330J	CERAMIC 50V 33P	1	
C4561		ECCF1H101JC	CERAMIC 50V 100P	1	
C4562		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4563		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4564		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C4565		ECCF1H100DC	CERAMIC 50V 10P	1	
C4566		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4567		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C4572		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4573		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C4574		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4575		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4576		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4577		ECQV1H154JZ	MYLAR 50V 0.15U	1	
C4578		ECCF1H221JC	CERAMIC 50V 220P	1	
C4579		ECKF1H471KB	CERAMIC 50V 470P	1	
C4580		ECQB1H682KH	MYLAR 50V 6800P	1	
C4581		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4582		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C4583		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4584		ECEA1HK0R1	ELECTROLYTIC 50V 0.1U	1	
C4585		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4586		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C4587		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4589		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C4590		ECEA1EKN4R7	ELECTROLYTIC 25V 4.7U	1	
C4591		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C4592		ECEA1EKN4R7	ELECTROLYTIC 25V 4.7U	1	
C4593		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C4594		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C4595		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C4596		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C4597		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C4598		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C4599		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C4600		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4601		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4602		ECEA1AK101	ELECTROLYTIC 10V 100U	1	
C4603		ECEA1AK101	ELECTROLYTIC 10V 100U	1	
C4604		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4605		ECEA1AK330	ELECTROLYTIC 10V 33U	1	
C4606		ECEA1AK330	ELECTROLYTIC 10V 33U	1	
C4607		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C4608		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C4701		ECEA1HKR33	ELECTROLYTIC 50V 0.33U	1	
C4702		ECQB1H333JH	MYLAR 50V 0.033U	1	
C4703		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4704		ECEA1HKR33	ELECTROLYTIC 50V 0.33U	1	
C4705		ECQB1H333JH	MYLAR 50V 0.033U	1	
C4706		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4707		ECQB1H273JH	MYLAR 50V 0.027U	1	
			DIODES		
D4502		MA154WK	DIODE	1	
D4503		MA165	DIODE	1	
D4504		MA154WA	DIODE	1	
D4505		MA154WA	DIODE	1	
D4506		MA154WK	DIODE	1	
D4507		MA154WK	DIODE	1	
D4508		MA165	DIODE	1	
D4509		MA165	DIODE	1	
D4510		MA165	DIODE	1	
			FILTERS		
FL4501		VLF0520	FILTER	1	
FL4503		VLF0520	FILTER	1	
FL4505		VLF0408	FILTER	1	
FL4506		VLF0442	FILTER	1	
			INTEGRATED CIRCUITS		
IC4501		BA7721S	IC	1	
IC4502		BA7711S	IC	1	
IC4503		AN3920K	IC	1	
IC4504		BA7056LS	IC	1	
			COIL		
L4501		VLQEL05F101K	COIL 100UH	1	
L4504		VLQEL05F221K	COIL 220UH	1	
L4505		VLQEL05F101K	COIL 100UH	1	
L4506		VLQEL05F101K	COIL 100UH	1	
			CONNECTORS		
P4501		VJS1676	CONNECTOR 28P	1	
P4502		VJP1231T	CONNECTOR (MALE) 4P	1	
P4503		VJP1231T	CONNECTOR (MALE) 4P	1	
P4504		VJP1141	CONNECTOR (MALE) 2P	1	
			TRANSISTORS		
Q4501		2SD636	TRANSISTOR	1	(Q,R,S)
Q4502		2SB641	TRANSISTOR	1	(Q,R,S)
Q4503		2SD636	TRANSISTOR	1	(Q,R,S)
Q4504		2SD1330	TRANSISTOR	1	(S,T)
Q4505		2SD1330	TRANSISTOR	1	(S,T)
Q4701		2SD636	TRANSISTOR	1	(Q,R,S)
Q4702		2SD636	TRANSISTOR	1	(Q,R,S)
			COMBINATION PARTS		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			(TRANSISTOR & RESISTOR)		
QR4501		UN1216	TRANSISTOR-RESISTOR	1	
QR4503		UN1216	TRANSISTOR-RESISTOR	1	
QR4505		UN1213	TRANSISTOR-RESISTOR	1	OR DTC144EA
QR4506		UN1213	TRANSISTOR-RESISTOR	1	OR DTC144EA
QR4507		UN1213	TRANSISTOR-RESISTOR	1	OR DTC144EA
QR4508		UN1213	TRANSISTOR-RESISTOR	1	OR DTC144EA
QR4509		UN1213	TRANSISTOR-RESISTOR	1	OR DTC144EA
QR4510		UN1112	TRANSISTOR-RESISTOR	1	
QR4511		UN1212	TRANSISTOR-RESISTOR	1	OR DTC124EA
			RESISTORS		
R4501		EROS2CKG1801	METAL OXIDE 1/4W 1.8K	1	
R4502		EROS2CKG1801	METAL OXIDE 1/4W 1.8K	1	
R4503		ERDS2TJ103	CARBON 1/4W 10K	1	
R4504		EROS2CKG2201	METAL OXIDE 1/4W 2.2K	1	
R4507		EROS2CKG2001	METAL OXIDE 1/4W 2K	1	
R4508		EROS2CKG3601	METAL OXIDE 1/4W 3.6K	1	
R4509		EROS2CKG1002	METAL OXIDE 1/4W 10K	1	
R4510		EROS2CKG1101	METAL OXIDE 1/4W 1.1K	1	
R4511		ERDS2TJ822	CARBON 1/4W 8.2K	1	
R4512		EROS2CKG3901	METAL OXIDE 1/4W 3.9K	1	
R4513		ERDS2TJ122	CARBON 1/4W 1.2K	1	
R4514		EROS2CKG1201	METAL OXIDE 1/4W 1.2K	1	
R4515		ERDS2TJ103	CARBON 1/4W 10K	1	
R4516		EROS2CKG3302	METAL OXIDE 1/4W 33K	1	
R4519		EROS2CKG2201	METAL OXIDE 1/4W 2.2K	1	
R4522		EROS2CKG1801	METAL OXIDE 1/4W 1.8K	1	
R4523		EROS2CKG1801	METAL OXIDE 1/4W 1.8K	1	
R4524		EROS2CKG2001	METAL OXIDE 1/4W 2K	1	
R4525		EROS2CKG3601	METAL OXIDE 1/4W 3.6K	1	
R4526		EROS2CKG1002	METAL OXIDE 1/4W 10K	1	
R4527		EROS2CKG1101	METAL OXIDE 1/4W 1.1K	1	
R4528		ERDS2TJ822	CARBON 1/4W 8.2K	1	
R4529		ERDS2TJ122	CARBON 1/4W 1.2K	1	
R4530		EROS2CKG3901	METAL OXIDE 1/4W 3.9K	1	
R4531		ERDS2TJ103	CARBON 1/4W 10K	1	
R4532		EROS2CKG1201	METAL OXIDE 1/4W 1.2K	1	
R4533		EROS2CKG3302	METAL OXIDE 1/4W 33K	1	
R4534		ERDS2TJ104	CARBON 1/4W 100K	1	
R4535		ERDS2TJ103	CARBON 1/4W 10K	1	
R4536		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R4537		EROS2CKG2402	METAL OXIDE 1/4W 24K	1	
R4538		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R4539		EROS2CKG6801	METAL OXIDE 1/4W 6.8K	1	
R4540		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R4541		EROS2CKG2402	METAL OXIDE 1/4W 24K	1	
R4542		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R4543		EROS2CKG9101	METAL OXIDE 1/4W 9.1K	1	
R4544		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R4545		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R4546		ERDS2TJ103	CARBON 1/4W 10K	1	
R4554		ERDS2TJ103	CARBON 1/4W 10K	1	
R4555		ERDS2TJ103	CARBON 1/4W 10K	1	
R4556		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R4557		ERDS2TJ471	CARBON 1/4W 470	1	
R4558		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R4559		ERDS2TJ102	CARBON 1/4W 1K	1	
R4560		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R4561		ERDS2TJ391	CARBON 1/4W 390	1	
R4562		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R4563		ERDS2TJ273	CARBON 1/4W 27K	1	
R4564		ERDS2TJ102	CARBON 1/4W 1K	1	
R4565		ERDS2TJ473	CARBON 1/4W 47K	1	
R4566		ERDS2TJ102	CARBON 1/4W 1K	1	
R4567		ERDS2TJ103	CARBON 1/4W 10K	1	
R4568		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R4569		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R4570		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R4571		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R4572		ERDS2TJ124	CARBON 1/4W 120K	1	
R4573		ERDS2TJ101	CARBON 1/4W 100	1	
R4574		ERDS2TJ124	CARBON 1/4W 120K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4575		ERDS2TJ101	CARBON 1/4W 100	1	
R4576		ERDS2TJ680	CARBON 1/4W 68	1	
R4577		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R4578		ERDS2TJ822	CARBON 1/4W 8.2K	1	
R4579		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R4580		ERDS2TJ103	CARBON 1/4W 10K	1	
R4581		ERDS2TJ680	CARBON 1/4W 68	1	
R4582		ERDS2TJ680	CARBON 1/4W 68	1	
R4583		ERDS2TJ103	CARBON 1/4W 10K	1	
R4584		ERDS2TJ823	CARBON 1/4W 82K	1	
R4585		ERDS2TJ102	CARBON 1/4W 1K	1	
R4586		ERDS2TJ334	CARBON 1/4W 330K	1	
R4587		ERDS2TJ151	CARBON 1/4W 150	1	
R4589		EROS2CKG2701	METAL OXIDE 1/4W 2.7K	1	
R4590		EROS2CKG2701	METAL OXIDE 1/4W 2.7K	1	
R4591		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R4592		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R4594		EROS2CKG3301	METAL OXIDE 1/4W 3.3K	1	
R4595		EROS2CKG3301	METAL OXIDE 1/4W 3.3K	1	
R4596		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R4597		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R4598		ERDS2TJ473	CARBON 1/4W 47K	1	
R4599		ERDS2TJ103	CARBON 1/4W 10K	1	
R4600		ERDS2TJ102	CARBON 1/4W 1K	1	
R4701		ERDS2TJ184	CARBON 1/4W 180K	1	
R4702		ERDS2TJ104	CARBON 1/4W 100K	1	
R4703		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R4704		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R4705		ERDS2TJ101	CARBON 1/4W 100	1	
R4706		ERDS2TJ184	CARBON 1/4W 180K	1	
R4707		ERDS2TJ104	CARBON 1/4W 100K	1	
R4708		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R4709		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R4710		ERDS2TJ101	CARBON 1/4W 100	1	
R4711		ERDS2TJ821	CARBON 1/4W 820	1	
R4712		ERDS2TJ821	CARBON 1/4W 820	1	
R4713		ERDS2TJ333	CARBON 1/4W 33K	1	
R4714		ERDS2TJ121	CARBON 1/4W 120	1	
			VARIABLE RESISTORS		
VR4501		EVN38CA00B23	VARIABLE 2K	1	
VR4502		EVND3AA00B14	VARIABLE 10K	1	
VR4503		VRV0020	VARIABLE 2K	1	
VR4504		EVND3AA00B14	VARIABLE 10K	1	
VR4505		VRV0024	VARIABLE 50K	1	
VR4507		EVND3AA00B14	VARIABLE 10K	1	
VR4508		EVND3AA00B14	VARIABLE 10K	1	
VR4509		EVN38CA00B23	VARIABLE 2K	1	
			MISCELLANEOUS		
		VJR0160W	PACK PIN	1	
	■	VEP05097B	HEAD AMP C.B.A.		
			CAPACITORS		
C501		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C502		ECUX1H560JCN	CHIP 50V 56P	1	
C503		ECUX1H331KBN	CHIP 50V 330P	1	
C504		ECUX1H560JCN	CHIP 50V 56P	1	
C505		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C506		ECUX1E473ZFN	CHIP 25V 0.047U	1	
C507		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C509		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C510		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C511		ECUX1H103ZFN	CHIP 50V 0.01U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C512		ECUX1H390JCN	CHIP 50V 39P	1	
C513		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C514		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C515		ECUX1H102KBN	CHIP 50V 1000P	1	
C516		ECUX1H560JCN	CHIP 50V 56P	1	
C517		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C518		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C519		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C520		ECUX1H220JCN	CHIP 50V 22P	1	
C521		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C522		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C523		ECUX1H220JCN	CHIP 50V 22P	1	
C524		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C525		ECUX1H102KBN	CHIP 50V 1000P	1	
C526		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C527		ECUX1H102KBN	CHIP 50V 1000P	1	
C528		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C529		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C530		ECUX1E473ZFN	CHIP 25V 0.047U	1	
C531		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C532		ECUX1H220JCN	CHIP 50V 22P	1	
C533		ECUX1H470JCN	CHIP 50V 47P	1	
C534		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C535		ECUX1H101JCN	CHIP 50V 100P	1	
C536		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C537		ECUX1H560JCN	CHIP 50V 56P	1	
C538		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C539		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C551		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C552		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C553		ECUX1E473ZFN	CHIP 25V 0.047U	1	
C554		ECUX1H391JN	CHIP 50V 390P	1	
C555		ECEA1HKR22	ELECTROLYTIC 50V 0.22U	1	
C556		ECUX1H101JCN	CHIP 50V 100P	1	
C557		ECUX1H101JCN	CHIP 50V 100P	1	
C558		ECEA1HKR22	ELECTROLYTIC 50V 0.22U	1	
C559		ECUX1H122KBN	CHIP 50V 1200P	1	
C560		ECUX1H122KBN	CHIP 50V 1200P	1	
C561		ECEA0JK330	ELECTROLYTIC 6.3V 33U	1	
C562		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C563		ECUX1H103ZFN	CHIP 50V 0.01U	1	
			INTEGRATED CIRCUITS		
IC501		AN3224K	IC	1	
IC502		AN3311S	IC	1	
IC551		UPC1531HA	IC	1	
			COILS		
L501		VLQEL05F101K	COIL 100UH	1	
L502		VLQEL05F121K	COIL 120UH	1	
L503		VLQEL05F181K	COIL 180UH	1	
L504		VLQEL05F120J	COIL 12UH	1	
L505		VLQEL05F101K	COIL 100UH	1	
L506		VLQEL05F330J	COIL 33UH	1	
L507		VLQEL05F470J	COIL 47UH	1	
L551		VLQEL05F101K	COIL 100UH	1	
L552		VLQEL05F101K	COIL 100UH	1	
			CONNECTORS		
P501		VJP1248T	CONNECTOR (MALE) 8P	1	
P502		VJP1235T	CONNECTOR (MALE) 8P	1	
			TRANSISTORS		
Q501		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q551		2SB643	TRANSISTOR	1	(Q,R,S)
Q552		2SD1306	TRANSISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			COMBINATION PARTS		
			(TRANSISTOR & RESISTOR)		
QR551		2SD1777CI	TRANSISTOR	1	
QR552		2SD1777CI	TRANSISTOR	1	
			RESISTORS		
R501		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R502		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R503		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R504		ERJ6GMYJ181	CHIP 1/16W 180	1	
R506		ERJ6GMYJ471	CHIP 1/16W 470	1	
R507		ERJ6GMYJ221	CHIP 1/16W 220	1	
R508		ERJ6GMYJ100	CHIP 1/16W 10	1	
R509		ERJ6GMYJ100	CHIP 1/16W 10	1	
R510		ERJ6GMYJ821	CHIP 1/16W 820	1	
R511		ERJ6GMYJ821	CHIP 1/16W 820	1	
R512		ERJ6GMYJ821	CHIP 1/16W 820	1	
R513		ERJ6GMYJ471	CHIP 1/16W 470	1	
R514		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R515		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R516		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R517		ERJ6GMYJ681	CHIP 1/16W 680	1	
R518		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R519		ERJ6GMYJ100	CHIP 1/16W 10	1	
R520		ERJ6GMYJ100	CHIP 1/16W 10	1	
R521		ERJ6GMYJ471	CHIP 1/16W 470	1	
R522		ERJ6GMYJ821	CHIP 1/16W 820	1	
R551		ERJ6GMYJ101	CHIP 1/16W 100	1	
R552		ERJ6GMYJ101	CHIP 1/16W 100	1	
R553		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R554		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R555		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R556		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R557		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R558		ERJ6GMYJ181	CHIP 1/16W 180	1	
R559		ERJ6GMYJ181	CHIP 1/16W 180	1	
R560		ERJ6GMYJ220	CHIP 1/16W 22	1	
R561		ERJ6GMYJ271	CHIP 1/16W 270	1	
R562		ERJ6GMYJ100	CHIP 1/16W 10	1	
R563		ERJ6GMYJ100	CHIP 1/16W 10	1	
R564		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R565		ERJ6GMYJ561	CHIP 1/16W 560	1	
R566		ERJ6GMYJ561	CHIP 1/16W 560	1	
			VARIABLE RESISTORS		
VR501		EVND1AA00B23	VARIABLE 2K	1	
VR502		EVND1AA00B53	VARIABLE 5K	1	
			MISCELLANEOUS		
		VSC1832	SHIELD CASE(TOP)	1	
		VSC1833	SHIELD CASE(MAIN)	1	
		VSC1834	SHIELD CASE(BOTTOM)	1	
	■	VEP06419A	OPERATION C.B.A.		
			DIODES		
D6501		LN81RCPHL	LED	1	
D6502		LN38GCPPSVT	LED	1	
D6503		MA165	DIODE	1	
D6504		MA165	DIODE	1	
D6505		MA165	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CONNECTORS		
P6501		VJP1250T	CONNECTOR (MALE) 10P	1	
P6502		VJP1929T	CONNECTOR 14P	1	
P6503		VJP1244T	CONNECTOR (MALE) 4P	1	
P6504		VJP1231T	CONNECTOR (MALE) 4P	1	
P6505		VJP1234T	CONNECTOR (MALE) 7P	1	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTOR)		
QR6501		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
			RESISTORS		
R6501		ERDS2TJ471	CARBON 1/4W 470	1	
R6502		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R6503		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R6504		ERDS2TJ102	CARBON 1/4W 1K	1	
R6505		ERDS2TJ223	CARBON 1/4W 22K	1	
R6506		ERDS2TJ392	CARBON 1/4W 3.9K	1	
			SWITCHES		
SW6501		EVQQS307K	SWITCH	1	
SW6502		EVQQS307K	SWITCH	1	
SW6503		EVQQS307K	SWITCH	1	
SW6504		ESD14314	SWITCH	1	
SW6506		ESD14316	SWITCH	1	
SW6507		ESD14316	SWITCH	1	
SW6508		ESD14314	SWITCH	1	
SW6509		VSS0162	SWITCH	1	
SW6510		ESD14316	SWITCH	1	
SW6511		ESD14314	SWITCH	1	
			VARIABLE RESISTORS		
VR6501		EVUFSAE04B15	VARIABLE 100K	1	
VR6502		EVUFSAE04B15	VARIABLE 100K	1	
VR6503		EVUFRAE04B24	VARIABLE 20K	1	
VR6504		EVJVGAE05C23	VARIABLE 2K	1	
			MISCELLANEOUS		
		KL04	LED HOLDER	1	
		VGU2707	EDIT KNOB	3	
		VGU2473	SYSTEM SW KNOB	3	
		VGU3836	MTS SW KNOB	1	
		VMD0504	LED HOLDER	1	
		VJF0427	JACK HOLDER	1	
	■	VEP07391A	TIMER C.B.A.		
			CAPACITORS		
C6701		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C6702		ECKF1H102KB	CERAMIC 50V 1000P	1	
C6703		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C6704		ECEA1HK3R3	ELECTROLYTIC 50V 3.3U	1	
C7501		ECCF1H080DC	CERAMIC 50V 8P	1	
C7502		ECRHA030E41	TRIMER 30P	1	
C7503		ECEA1HKR22	ELECTROLYTIC 50V 0.22U	1	
C7504		ECCF1H220JC	CERAMIC 50V 22P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C7505		ECCF1H330JC	CERAMIC 50V 33P	1	
C7507		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C7510		ECEA1HK220	ELECTROLYTIC 50V 22U	1	
C7511		ECEA0JK221	ELECTROLYTIC 6.3V 220U	1	
C7512		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C7514		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7515		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C7516		ECCF1H330JC	CERAMIC 50V 33P	1	
C7517		ECCF1H330JC	CERAMIC 50V 33P	1	
C7586		ECQB1H102JH	MYLAR 50V 1000P	1	
C7588		ECKF1H331KB	CERAMIC 50V 330P	1	
			DIODES		
D6701		PN323B	PHOTO DIODE	1	
D7501		11ES1	DIODE	1	
D7502		MA4075M	DIODE	1	
D7503		MA165	DIODE	1	
D7517		LN81RCPHL	LED	1	
D7518		LN81RCPHL	LED	1	
D7522		MA165	DIODE	1	
D7523		MA165	DIODE	1	
D7525		MA165	DIODE	1	
D7526		MA165	DIODE	1	
D7532		MA165	DIODE	1	
D7534		MA165	DIODE	1	
D7535		MA165	DIODE	1	
D7536		MA165	DIODE	1	
D7537		MA165	DIODE	1	
D7538		MA165	DIODE	1	
D7539		MA165	DIODE	1	
D7540		MA165	DIODE	1	
D7541		MA165	DIODE	1	
D7542		MA165	DIODE	1	
D7545		MA165	DIODE	1	
D7546		LN41YCPHL	LED	1	
D7547		LN41YCPHL	LED	1	
D7548		LN81RCPHL	LED	1	
D7561		MA165	DIODE	1	
			DISPLAY TUBE		
DP7501		VSL0102	DISPLAY TUBE	1	
			INTEGRATED CIRCUITS		
IC6701		UPC1490HA	IC	1	
IC7501		MN15283VJZ	IC	1	
IC7502		MN1226	IC	1	
IC7504		MN1280P	IC	1	
			COILS		
L7501		VLQEL05F221K	COIL 220UH	1	
L7550		VLP0017	COIL	1	
			CONNECTORS		
P7501		VJP1250T	CONNECTOR (MALE) 10P	1	
P7502		VJS1937	CONNECTOR (FEMALE) 13P	1	
P7503		VJP1239T	CONNECTOR (MALE) 12P	1	
P7504		VJP1247T	CONNECTOR (MALE) 7P	1	
P7505		VJP1247T	CONNECTOR (MALE) 7P	1	
P7506		VJS1491	CONNECTOR (FEMALE) 13P	1	
P7508		VJP1245T	CONNECTOR (MALE) 5P	1	
P7509		VJP1245T	CONNECTOR (MALE) 5P	1	
			TRANSISTOR		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q7501		2SD637	TRANSISTOR	1	(Q,R,S)
			COMBINATION PARTS		
			(TRANSISTOR & RESISTOR)		
QR7502		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR7503		DTA124EA	TRANSISTOR RESISTOR	1	OR UN1112
QR7505		DTA144EA	TRANSISTOR RESISTOR	1	OR UN1113
QR7506		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR7508		UN1110	TRANSISTOR-RESISTOR	1	
QR7509		UN1110	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R6701		ERDS2TJ753	CARBON 1/4W 75K	1	
R6702		ERDS2TJ100	CARBON 1/4W 10	1	
R7501		ERDS2TJ122	CARBON 1/4W 1.2K	1	
R7503		ERDS2TJ224	CARBON 1/4W 220K	1	
R7507		ERDS2TJ104	CARBON 1/4W 100K	1	
R7508		ERDS2TJ470	CARBON 1/4W 47	1	
R7509		ERDS2TJ102	CARBON 1/4W 1K	1	
R7510		ERDS2TJ223	CARBON 1/4W 22K	1	
R7511		ERDS2TJ473	CARBON 1/4W 47K	1	
R7512		ERDS2TJ473	CARBON 1/4W 47K	1	
R7515		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7527		ERDS2TJ103	CARBON 1/4W 10K	1	
R7528		ERDS2TJ103	CARBON 1/4W 10K	1	
R7530		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R7531		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R7532		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R7533		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R7534		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R7535		ERDS2TJ102	CARBON 1/4W 1K	1	
R7536		ERDS2TJ103	CARBON 1/4W 10K	1	
R7544		EROS2CKG2701	METAL OXIDE 1/4W 2.7K	1	
R7545		EROS2CKG2201	METAL OXIDE 1/4W 2.2K	1	
R7546		EROS2CKG2201	METAL OXIDE 1/4W 2.2K	1	
R7547		EROS2CKG2701	METAL OXIDE 1/4W 2.7K	1	
R7561		ERDS2TJ103	CARBON 1/4W 10K	1	
R7597		ERDS2TJ473	CARBON 1/4W 47K	1	
R7598		ERDS2TJ473	CARBON 1/4W 47K	1	
R7599		ERDS2TJ102	CARBON 1/4W 1K	1	
			VARIABLE RESISTORS		
VR6701		EVMLGGA00B54	VARIABLE 50K	1	
VR7501		EWANYCX05J54	VARIABLE 50K	1	
			CRYSTAL OSCILLATORS		
X7501		VSX0140	CRYSTAL OSCILLATOR	1	
X7502		VSX0094	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VJF0398	FIP HOLDER	1	
		KL04	LED HOLDER	5	
		VJF0412	LEVEL METER ARAY HOLDER	1	
		VGQ1188	REC VR SLIDE PLATE	1	
		VGQ1189	REC VR LEVER	2	
		VGU3436	REC VR KNOB	2	
		VSC1844	IR SHIELD CASE(MAIN)	1	
		VSC1928	IR SHIELD CASE(BOTTOM)	1	
		VSC1929	IR SHIELD (TOP)	1	
	■	VEP07407A	DIGITAL AFC & OSD C.B.A.		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CAPACITORS		
C3201		ECEA1VK4R7	ELECTROLYTIC 35V 4.7U	1	
C3202		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3203		ECEA1VK4R7	ELECTROLYTIC 35V 4.7U	1	
C3204		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C3205		ECEA1VKN4R7	ELECTROLYTIC 35V 4.7U	1	
C3206		ECEA1VK4R7	ELECTROLYTIC 35V 4.7U	1	
C3215		ECEA0JK101	ELECTROLYTIC 6.3V 100U	1	
C3216		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C3217		ECEA1HKR22	ELECTROLYTIC 50V 0.22U	1	
C3218		ECKF1H152KB	CERAMIC 50V 1500P	1	
C3219		ECQB1H471JH	MYLAR 50V 470P	1	
C3220		ECKF1H471KB	CERAMIC 50V 470P	1	
C3221		ECQV1H473JZ	MYLAR 50V 0.047U	1	
C3222		ECEA1HK0R1	ELECTROLYTIC 50V 0.1U	1	
C3223		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C3224		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C3225		ECKF1H472ZF	CERAMIC 50V 4700P	1	
C3226		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3227		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C3228		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C3229		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C3230		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C3231		ECEA0JK101	ELECTROLYTIC 6.3V 100U	1	
C3232		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C3233		ECQB1H152KH	MYLAR 50V 1500P	1	
C3234		ECQB1H223JH	MYLAR 50V 0.022U	1	
C3235		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3236		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3237		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3240		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C3241		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C3242		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C3243		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C3245		ECEA0JK101	ELECTROLYTIC 6.3V 100U	1	
C3248		ECKF1H821KB	CERAMIC 50V 820P	1	
C3249		ECKF1H182KB	CERAMIC 50V 1800P	1	
C3250		ECCF1H151J	CERAMIC 50V 150P	1	
C3252		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3253		ECEA0JK101	ELECTROLYTIC 6.3V 100U	1	
C3254		ECKF1H391KB	CERAMIC 50V 390P	1	
C3255		ECCF1H121J	CERAMIC 50V 120P	1	
C3256		ECCF1H101J	CERAMIC 50V 100P	1	
C3951		ECEA1CKN4R7	ELECTROLYTIC 16V 4.7U	1	
C3952		ECEA1CKN4R7	ELECTROLYTIC 16V 4.7U	1	
C3953		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C3954		ECKF1H152KB	CERAMIC 50V 1500P	1	
C3955		ECQB1H471JH	MYLAR 50V 470P	1	
C3956		ECKF1H471KB	CERAMIC 50V 470P	1	
C3957		ECQV1H473JZ	MYLAR 50V 0.047U	1	
C3958		ECEA1HK0R1	ELECTROLYTIC 50V 0.1U	1	
C3959		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3960		ECCF1H820JC	CERAMIC 50V 82P	1	
C3961		ECEA1CKN4R7	ELECTROLYTIC 16V 4.7U	1	
C3962		ECKF1H472KB	CERAMIC 50V 4700P	1	
C3964		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C3966		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3967		ECKF1H331ZF	CERAMIC 50V 330P	1	
C7701		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C7702		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C7703		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7704		ECCF1H330JC	CERAMIC 50V 33P	1	
C7705		ECCF1H330JC	CERAMIC 50V 33P	1	
C7706		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7707		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C7708		ECEA1HKR22	ELECTROLYTIC 50V 0.22U	1	
C7709		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C7710		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7711		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C7712		ECEA1EKN4R7	ELECTROLYTIC 25V 4.7U	1	
C7713		ECRHA040E41	TRIMMER 40P	1	
C7714		ECCF1H150JC	CERAMIC 50V 15P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C7716		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C7717		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7718		ECCF1H820JC	CERAMIC 50V 82P	1	
C7719		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C7720		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7721		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C7722		ECEA0JKN470	ELECTROLYTIC 6.3V 47U	1	
C7723		ECEA0JKN470	ELECTROLYTIC 6.3V 47U	1	
C7724		ECEA0JKN470	ELECTROLYTIC 6.3V 47U	1	
C7725		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C7726		ECEA1HKNR47	ELECTROLYTIC 50V 0.47U	1	
C7727		ECQB1H103JH	MYLAR 50V 0.01U	1	
C7728		ECCF1H101JC	CERAMIC 50V 100P	1	
C7729		ECQB1H103JH	MYLAR 50V 0.01U	1	
C7730		ECCF1H101JC	CERAMIC 50V 100P	1	
C7731		ECKF1H471KB	CERAMIC 50V 470P	1	
C7732		ECQB1H562JH	MYLAR 50V 5600P	1	
C7733		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C7734		ECQB1H103JH	MYLAR 50V 0.01U	1	
C7735		ECQB1H152JH	MYLAR 50V 1500P	1	
C7736		ECQP1392JZ	MYLAR 100V 3900P	1	
C7737		ECCF1H221JC	CERAMIC 50V 220P	1	
C7738		ECCF1H150JC	CERAMIC 50V 15P	1	
C7740		ECCF1H330JC	CERAMIC 50V 33P	1	
			DIODES		
D3202		MA165	DIODE	1	
D3204		MA4091M	DIODE	1	
D3205		MA165	DIODE	1	
D3207		MA165	DIODE	1	
D3208		MA165	DIODE	1	
D3951		MA4091M	DIODE	1	
D7701		MA165	DIODE	1	
D7704		MA165	DIODE	1	
D7705		MA165	DIODE	1	
D7707		MA165	DIODE	1	
D7712		MA165	DIODE	1	
D7718		MA165	DIODE	1	
D7720		MA165	DIODE	1	
D7721		MA165	DIODE	1	
D7722		MA4030M	DIODE	1	
D7724		MA165	DIODE	1	
D7725		MA165	DIODE	1	
D7726		MA165	DIODE	1	
D7790		MA27WA	DIODE	1	
D7791		MA165	DIODE	1	
D7792		MA165	DIODE	1	
			DELAY LINE		
DL3201		VLD0091	DELAY LINE	1	
			FILTERS		
FL3201		VLF0250	FILTER	1	
FL3202		VLF0218	FILTER	1	
			INTEGRATED CIRCUITS		
IC3201		UPD4066BC	IC	1	
IC3202		UPD4066BC	IC	1	
IC3204		TA7357P	IC	1	
IC3205		AN6366NK	IC	1	
IC3206		AN2510S	IC	1	
IC3951		UPD4066BC	IC	1	
IC3952		TA7357P	IC	1	
IC7701		MN15263VJX	IC	1	
IC7702		MB88324K1PG	IC	1	
IC7703		UPD4066BC	IC	1	
IC7704		MN1280P	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC7705		AN5753	IC	1	
			COILS		
L3201		VLQEL05F101K	COIL 100UH	1	
L3203		VLQEL05F101K	COIL 100UH	1	
L3204		VLQEL05F101K	COIL 100UH	1	
L3206		VLQEL05F120K	COIL 12UH	1	
L3207		VLQEL05F150K	COIL 15UH	1	
L7701		VLQEL05F101K	COIL 100UH	1	
L7702		VLQEL05F101K	COIL 100UH	1	
L7703		VLQEL05F150K	COIL 15UH	1	
L7704		VLQEL05F101K	COIL 100UH	1	
			CONNECTORS		
P3201		VJP1237T	CONNECTOR (MALE) 10P	1	
P3202		VJP1230T	CONNECTOR (MALE) 3P	1	
P3203		VJP1236T	CONNECTOR (MALE) 9P	1	
P3204		VJP1229T	CONNECTOR (MALE) 2P	1	
P7701		VJP1232T	CONNECTOR (MALE) 5P	1	
			TRANSISTORS		
Q3201		2SD636	TRANSISTOR	1	(Q,R,S)
Q3202		2SD636	TRANSISTOR	1	(Q,R,S)
Q3203		2SD636	TRANSISTOR	1	(Q,R,S)
Q3204		2SD636	TRANSISTOR	1	(Q,R,S)
Q3205		2SD636	TRANSISTOR	1	(Q,R,S)
Q3206		2SD636	TRANSISTOR	1	(Q,R,S)
Q3207		2SD636	TRANSISTOR	1	(Q,R,S)
Q3208		2SD636	TRANSISTOR	1	(Q,R,S)
Q3209		2SD636	TRANSISTOR	1	(Q,R,S)
Q3212		2SD636	TRANSISTOR	1	(Q,R,S)
Q3213		2SC2206	TRANSISTOR	1	(B,C)
Q3215		2SD636	TRANSISTOR	1	(Q,R,S)
Q3220		2SB641	TRANSISTOR	1	(Q,R,S)
Q3221		2SD636	TRANSISTOR	1	(Q,R,S)
Q3951		2SD636	TRANSISTOR	1	(Q,R,S)
Q3952		2SD636	TRANSISTOR	1	(Q,R,S)
Q3954		2SD636	TRANSISTOR	1	(Q,R,S)
Q7701		2SD636	TRANSISTOR	1	(Q,R,S)
Q7702		2SD636	TRANSISTOR	1	(Q,R,S)
Q7703		2SB641	TRANSISTOR	1	(Q,R,S)
Q7704		2SD636	TRANSISTOR	1	(Q,R,S)
Q7705		2SB641	TRANSISTOR	1	(Q,R,S)
Q7706		2SD636	TRANSISTOR	1	(S,T)
Q7707		2SD636	TRANSISTOR	1	(Q,R,S)
			COMBINATION PARTS		
			(TRANSISTOR & RESISTOR)		
QR3201		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR3202		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR3203		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR3204		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR7702		DTC124EA	TRANSISTOR RESISTOR	1	
QR7706		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR7707		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR7709		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR7710		DTC124EA	TRANSISTOR RESISTOR	1	
QR7790		DTC124EA	TRANSISTOR RESISTOR	1	
QR7791		DTC124EA	TRANSISTOR RESISTOR	1	
			RESISTORS		
R3201		ERDS2TJ561	CARBON 1/4W 560	1	
R3202		ERDS2TJ561	CARBON 1/4W 560	1	
R3203		ERDS2TJ103	CARBON 1/4W 10K	1	
R3204		ERDS2TJ103	CARBON 1/4W 10K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3205		ERDS2TJ103	CARBON 1/4W 10K	1	
R3206		ERDS2TJ103	CARBON 1/4W 10K	1	
R3207		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R3208		ERDS2TJ103	CARBON 1/4W 10K	1	
R3209		ERDS2TJ103	CARBON 1/4W 10K	1	
R3210		ERDS2TJ102	CARBON 1/4W 1K	1	
R3211		ERDS2TJ103	CARBON 1/4W 10K	1	
R3213		ERDS2TJ103	CARBON 1/4W 10K	1	
R3214		ERDS2TJ103	CARBON 1/4W 10K	1	
R3225		ERDS2TJ102	CARBON 1/4W 1K	1	
R3226		ERDS2TJ102	CARBON 1/4W 1K	1	
R3227		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R3228		ERDS2TJ103	CARBON 1/4W 10K	1	
R3229		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R3230		ERDS2TJ563	CARBON 1/4W 56K	1	
R3231		ERDS2TJ224	CARBON 1/4W 220K	1	
R3232		ERDS2TJ123	CARBON 1/4W 12K	1	
R3233		ERDS2TJ124	CARBON 1/4W 120K	1	
R3234		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R3235		ERDS2TJ103	CARBON 1/4W 10K	1	
R3236		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R3237		ERDS2TJ104	CARBON 1/4W 100K	1	
R3238		ERDS2TJ223	CARBON 1/4W 22K	1	
R3239		ERDS2TJ331	CARBON 1/4W 330	1	
R3240		ERDS2TJ102	CARBON 1/4W 1K	1	
R3241		ERDS2TJ471	CARBON 1/4W 470	1	
R3242		ERDS2TJ102	CARBON 1/4W 1K	1	
R3243		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R3244		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R3245		ERDS2TJ122	CARBON 1/4W 1.2K	1	
R3246		ERDS2TJ561	CARBON 1/4W 560	1	
R3247		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R3248		ERDS2TJ561	CARBON 1/4W 560	1	
R3249		ERDS2TJ273	CARBON 1/4W 27K	1	
R3250		ERDS2TJ153	CARBON 1/4W 15K	1	
R3251		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R3252		ERDS2TJ102	CARBON 1/4W 1K	1	
R3253		ERDS2TJ102	CARBON 1/4W 1K	1	
R3254		EROS2CKG6201	METAL OXIDE 1/4W 6.2K	1	
R3255		ERDS2TJ683	CARBON 1/4W 68K	1	
R3256		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R3257		ERDS2TJ101	CARBON 1/4W 100	1	
R3258		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R3259		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R3260		ERDS2TJ331	CARBON 1/4W 330	1	
R3266		ERDS2TJ103	CARBON 1/4W 10K	1	
R3267		ERDS2TJ822	CARBON 1/4W 8.2K	1	
R3268		ERDS2TJ561	CARBON 1/4W 560	1	
R3269		ERDS2TJ561	CARBON 1/4W 560	1	
R3271		ERDS2TJ561	CARBON 1/4W 560	1	
R3272		ERDS2TJ103	CARBON 1/4W 10K	1	
R3273		ERDS2TJ822	CARBON 1/4W 8.2K	1	
R3274		ERDS2TJ102	CARBON 1/4W 1K	1	
R3275		ERDS2TJ102	CARBON 1/4W 1K	1	
R3279		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R3280		ERDS2TJ122	CARBON 1/4W 1.2K	1	
R3289		ERDS2TJ123	CARBON 1/4W 12K	1	
R3292		ERDS2TJ561	CARBON 1/4W 560	1	
R3293		ERDS2TJ391	CARBON 1/4W 390	1	
R3295		ERDS2TJ122	CARBON 1/4W 1.2K	1	
R3296		ERDS2TJ102	CARBON 1/4W 1K	1	
R3297		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R3298		ERDS2TJ102	CARBON 1/4W 1K	1	
R3951		ERDS2TJ103	CARBON 1/4W 10K	1	
R3952		ERDS2TJ103	CARBON 1/4W 10K	1	
R3953		ERDS2TJ103	CARBON 1/4W 10K	1	
R3954		ERDS2TJ103	CARBON 1/4W 10K	1	
R3955		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R3956		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R3957		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R3958		ERDS2TJ103	CARBON 1/4W 10K	1	
R3959		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R3960		ERDS2TJ563	CARBON 1/4W 56K	1	
R3961		ERDS2TJ224	CARBON 1/4W 220K	1	
R3962		ERDS2TJ123	CARBON 1/4W 12K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3963		ERDS2TJ124	CARBON 1/4W 120K	1	
R3964		ERDS2TJ393	CARBON 1/4W 39K	1	
R3965		ERDS2TJ103	CARBON 1/4W 10K	1	
R3966		ERDS2TJ331	CARBON 1/4W 330	1	
R3969		ERDS2TJ123	CARBON 1/4W 12K	1	
R3971		ERDS2TJ103	CARBON 1/4W 10K	1	
R3973		ERDS2TJ153	CARBON 1/4W 15K	1	
R3974		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R7701		ERDS2TJ103	CARBON 1/4W 10K	1	
R7702		ERDS2TJ103	CARBON 1/4W 10K	1	
R7703		ERDS2TJ103	CARBON 1/4W 10K	1	
R7704		ERDS2TJ103	CARBON 1/4W 10K	1	
R7705		ERDS2TJ103	CARBON 1/4W 10K	1	
R7706		ERDS2TJ103	CARBON 1/4W 10K	1	
R7708		ERDS2TJ104	CARBON 1/4W 100K	1	
R7709		ERDS2TJ103	CARBON 1/4W 10K	1	
R7710		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R7711		ERDS2TJ103	CARBON 1/4W 10K	1	
R7712		ERDS2TJ103	CARBON 1/4W 10K	1	
R7713		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R7714		ERDS2TJ561	CARBON 1/4W 560	1	
R7715		ERDS2TJ151	CARBON 1/4W 150	1	
R7716		ERDS2TJ821	CARBON 1/4W 820	1	
R7717		ERDS2TJ561	CARBON 1/4W 560	1	
R7718		ERDS2TJ102	CARBON 1/4W 1K	1	
R7719		ERDS2TJ681	CARBON 1/4W 680	1	
R7721		ERDS2TJ473	CARBON 1/4W 47K	1	
R7722		ERDS2TJ151	CARBON 1/4W 150	1	
R7723		ERDS2TJ821	CARBON 1/4W 820	1	
R7724		ERDS2TJ102	CARBON 1/4W 1K	1	
R7725		ERDS2TJ103	CARBON 1/4W 10K	1	
R7726		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R7727		ERDS2TJ103	CARBON 1/4W 10K	1	
R7728		ERDS2TJ103	CARBON 1/4W 10K	1	
R7729		ERDS2TJ103	CARBON 1/4W 10K	1	
R7730		ERDS2TJ103	CARBON 1/4W 10K	1	
R7731		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R7732		ERDS2TJ473	CARBON 1/4W 47K	1	
R7733		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R7734		ERDS2TJ103	CARBON 1/4W 10K	1	
R7735		ERDS2TJ103	CARBON 1/4W 10K	1	
R7736		ERDS2TJ390	CARBON 1/4W 39	1	
R7737		ERDS2TJ103	CARBON 1/4W 10K	1	
R7738		ERDS2TJ822	CARBON 1/4W 8.2K	1	
R7739		ERDS2TJ273	CARBON 1/4W 27K	1	
R7740		ERDS2TJ103	CARBON 1/4W 10K	1	
R7741		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R7742		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R7743		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R7744		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R7745		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R7746		ERDS2TJ103	CARBON 1/4W 10K	1	
R7747		ERDS2TJ103	CARBON 1/4W 10K	1	
R7748		ERDS2TJ223	CARBON 1/4W 22K	1	
R7750		ERDS2TJ561	CARBON 1/4W 560	1	
R7751		ERDS2TJ103	CARBON 1/4W 10K	1	
R7752		ERDS2TJ473	CARBON 1/4W 47K	1	
R7754		ERDS2TJ271	CARBON 1/4W 270	1	
R7790		ERDS2TJ563	CARBON 1/4W 56K	1	
R7791		ERDS2TJ473	CARBON 1/4W 47K	1	
R7792		ERDS2TJ103	CARBON 1/4W 10K	1	
R7793		ERDS2TJ103	CARBON 1/4W 10K	1	
			VARIABLE RESISTORS		
VR3201		EVN38CA00B54	VARIABLE 50K	1	
VR3202		EVN38CA00B23	VARIABLE 2K	1	
VR3203		EVN38CA00B23	VARIABLE 2K	1	
VR3204		EVN38CA00B52	VARIABLE 500	1	
VR3205		EVN38CA00B13	VARIABLE 1K	1	
VR3206		EVN38CA00B23	VARIABLE 2K	1	
VR3951		EVN38CA00B54	VARIABLE 50K	1	
VR7701		EVN38CA00B52	VARIABLE 500	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CRYSTAL OSCILLATORS		
X7701		EF0A4R0M03C1	CRYSTAL OSCILLATOR	1	
X7702		VSX0214	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VSC2070	SHIELD CASE (TOP)	1	
		VSC2071	SHIELD CASE (MAIN)	1	
		VSC2072	SHIELD CASE (BOTTOM)	1	
		VKC0271	HINGE	1	
		VKC0083	HINGE	1	
		VJF0035	CLAMPER	1	
	■	VEP07348H	TV DEMODULATOR C.B.A.		
			CAPACITORS		
C703		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C710		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C715		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C716		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C717		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C718		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C719		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C720		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C721		ECEA1HKR27	ELECTROLYTIC 50V 0.27U	1	
C722		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C723		ECUX1H220JCN	CHIP 50V 22P	1	
C731		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C732		ECQV1H224JZ	MYLAR 50V 0.22U	1	
C734		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C735		ECUX1H050CCN	CHIP 50V 5P	1	
C736		ECQB1H153JH	MYLAR 50V 0.015U	1	
C737		ECUX1H121JCN	CHIP 50V 120P	1	
C739		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C740		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C741		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C743		ECUX1H270JSN	CHIP 50V 27P	1	
C744		ECEA1HKR47	ELECTROLYTIC 50V 0.47U	1	
C745		ECUX1H470JPN	CHIP 50V 47P	1	
C746		ECUX1H100DCN	CHIP 50V 10P	1	
C747		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C749		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C781		ECUX1H470JCN	CHIP 50V 47P	1	
C782		ECCF1H060DC	CERAMIC 50V 6P	1	
			DIODE		
D712		MA27WA	DIODE	1	
			INTEGRATED CIRCUITS		
IC701		M51366SP	IC	1	
			COILS		
L712		ELQTR47XB	COIL 0.47UH	1	
L713		ELQTR56XB	COIL 0.56UH	1	
L714		ELQT1R2KB	COIL 1.2mH	1	
L715		VLQ0167	COIL 56UH	1	
L717		VLQEL05F680K	COIL 68UH	1	
L718		VLQEL05F680K	COIL 68UH	1	
L719		VLQEL05F150K	COIL 15UH	1	
L781		VLQEL05F680K	COIL 68UH	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			TRANSISTORS		
Q710		2SC2377	TRANSISTOR	1	(C)
Q713		2SD1328	TRANSISTOR CHIP	1	(S,T)
Q714		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
			COMBINATION PARTS		
			(TRANSISTOR & RESISTOR)		
QR701		UN2213	TRANSISTOR-RESISTOR	1	
QR702		UN2213	TRANSISTOR-RESISTOR	1	
QR713		UN2211	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R712		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R713		ERJ6GMYJ681	CHIP 1/16W 680	1	
R714		ERD2FCG330	CARBON 2W 33	1	<!>
R715		ERJ6GMYJ271	CHIP 1/16W 270	1	
R716		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R717		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R718		ERJ6GMYJ754	CHIP 1/16W 750K	1	
R719		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R720		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R723		ERJ6GMYJ183	CHIP 1/16W 18K	1	
R724		ERJ6GMYJ101	CHIP 1/16W 100	1	
R725		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R726		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R727		ERJ6GMYJ471	CHIP 1/16W 470	1	
R729		ERJ6GMYJ331	CHIP 1/16W 330	1	
R730		ERJ6GMYJ331	CHIP 1/16W 330	1	
R737		ERJ6GMYJ394	CHIP 1/16W 390K	1	
R738		ERJ6GMYJ274	CHIP 1/16W 270K	1	
R739		ERDS2TJ681	CARBON 1/4W 680	1	
R740		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R741		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R742		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R743		ERDS2TJ470	CARBON 1/4W 47	1	
R744		ERJ6GMYJ821	CHIP 1/16W 820	1	
R745		ERJ6GMYJ331	CHIP 1/16W 330	1	
R750		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R757		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R759		ERDS2TJ103	CARBON 1/4W 10K	1	
R760		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R763		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R764		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R781		ERJ6GMYJ271	CHIP 1/16W 270	1	
R782		ERJ6GMYJ391	CHIP 1/16W 390	1	
R792		ERJ6GMYJ120	CHIP 1/16W 12	1	
			TRANSFORMERS		
T703		EIV5EC015A	TRANSFORMER	1	
T704		EIV5EC014A	TRANSFORMER	1	
T711		EIS5EC010A	TRANSFORMER	1	
			VARIABLE RESISTORS		
VR741		EVN38CA00B14	VARIABLE 10K	1	
VR751		EVN38CA00B53	VARIABLE 5K	1	
			CRYSTAL OSCILLATORS		
X710		EFCH45MSP1	CRYSTAL OSCILLATOR	1	
X711		EFCS4R5MW5A	FILTER 4.5MHz	1	
X712		EFCS4R5MS5W	FILTER 4.5MHz	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			MISCELLANEOUS		
		VJR0190	PACK PIN	1	
		VSC1788	SHIELD CASE (TOP)	1	
		VSC1789	SHIELD CASE (MAIN)	1	
		VSC1888	SHIELD CASE (BOTTOM)	1	
	■	VEP07349H	TUNER/ARU C.B.A.		
			CAPACITORS		
C701		ECEA1CKS220	ELECTROLYTIC 16V 22U	1	
C702		ECEA1CKS100	ELECTROLYTIC 16V 10U	1	
C705		ECEA1CKS100	ELECTROLYTIC 16V 10U	1	
C706		ECQV1H823JZ	MYLAR 50V 0.082U	1	
C707		ECEA1HK0R1	ELECTROLYTIC 50V 0.1U	1	
C708		ECEA1CKS220	ELECTROLYTIC 16V 22U	1	
C709		ECEA1CKS220	ELECTROLYTIC 16V 22U	1	
C725		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C728		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C730		ECEA1CKS100	ELECTROLYTIC 16V 10U	1	
C748		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C7652		ECEA1CKN330	ELECTROLYTIC 16V 33U	1	
C7653		ECQB1H392JH	MYLAR 50V 3900P	1	
C7654		ECQB1H103JH	MYLAR 50V 0.01U	1	
C7655		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7656		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7657		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C7658		ECQP1H562JZ	MYLAR 50V 5600P	1	
C7659		ECQB1H272JH	MYLAR 50V 2700P	1	
			DIODE		
D710		MA3100L	DIODE	1	
			INTEGRATED CIRCUIT		
IC7651		AN5421	IC	1	
			COILS		
L701		VLQEL05F680K	COIL 68UH	1	
L702		VLQEL05F680K	COIL 68UH	1	
L711		ELQTR56XB	COIL	1	
			TRANSISTORS		
Q703		2SD601	TRANSISTOR CHIP	1	(S)
Q712		2SD638	TRANSISTOR	1	(Q,R,S)
Q7651		2SD601	TRANSISTOR CHIP	1	(S)
			COMBINATION PARTS		
			(TRANSISTOR & RESISTOR)		
QR711		UN2212	TRANSISTOR-RESISTOR	1	
QR712		UN2212	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R707		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R721		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R722		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R728		ERDS2TJ471	CARBON 1/4W 470	1	
R746		ERDS2TJ151	CARBON 1/4W 150	1	
R7651		ERJ6GMYJ103	CHIP 1/16W 10K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R7653		ERJ6GMYJ471	CHIP 1/16W 470	1	
R7654		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R7655		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R7656		ERJ6GMYJ151	CHIP 1/16W 150	1	
R7657		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R7658		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R7659		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R7661		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R7662		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R7663		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R7664		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
			VARIABLE RESISTERS		
VR701		EVNE4AA00B23	VARIABLE 2K	1	
VR702		EVNE4AA00B23	VARIABLE 2K	1	
VR7660		EVNE4AA00B23	VARIABLE 2K	1	
			MISCELLANEOUS		
		VMP1040		1	
	■	VEP07398A	TV DEMODULATOR INTERFACE		
			C.B.A.		
			DIODE		
D720		MA165	DIODE	1	
			CONNECTORS		
P701		VJP1244T	CONNECTOR (MALE) 4P	1	
P702		VJP1961	CONNECTOR 11P	1	
P703		VJP1930T	CONNECTOR 14P	1	
P705		VJP1393T	CONNECTOR (MALE) 13P	1	
			RESISTOR		
R799		ERDS2TJ2R2	CARBON 1/4W 2.2	1	
	■	VEP07399A	DECODER C.B.A.		
			CAPACITORS		
C7301		ECEA1CU101	ELECTROLYTIC 16V 100U	1	
C7302		ECQB1H103JH	MYLAR 50V 0.01U	1	
C7303		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7304		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7305		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7306		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7307		ECQB1H123JH	MYLAR 50V 0.012U	1	
C7308		ECQB1H223JH	MYLAR 50V 0.022U	1	
C7309		ECQB1H123JH	MYLAR 50V 0.012U	1	
C7310		ECQB1H223JH	MYLAR 50V 0.022U	1	
C7311		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C7312		ECQB1H103JH	MYLAR 50V 0.01U	1	
C7313		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7314		ECEA1CKN100	ELECTROLYTIC 16V 10U	1	
C7315		ECCF1H331J	CERAMIC 50V 330P	1	
C7316		ECQP1H102JZ	MYLAR 50V 1000P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C7317		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7318		ECQB1H103JH	MYLAR 50V 0.01U	1	
C7319		ECEA1HKN2R2	ELECTROLYTIC 50V 2.2U	1	
C7320		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7321		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C7322		ECEA1HKR47	ELECTROLYTIC 50V 0.47U	1	
C7323		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7324		ECKF1H102KB	CERAMIC 50V 1000P	1	
C7325		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C7326		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7327		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7328		ECQB1H223JH	MYLAR 50V 0.022U	1	
C7329		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7330		ECEA1CU471	ELECTROLYTIC 16V 470U	1	
C7331		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7332		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7333		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7370		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C7394		ECQB1H222JH	MYLAR 50V 2200P	1	
C7395		ECQB1H123JH	MYLAR 50V 0.012U	1	
C7396		ECQB1H822JH	MYLAR 50V 8200P	1	
C7398		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7901		ECKF1H222KB	CERAMIC 50V 2200P	1	
C7902		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C7903		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C7904		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7905		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C7906		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7907		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7908		ECQB1H273JH	MYLAR 50V 0.027U	1	
C7909		ECEA1AKN100	ELECTROLYTIC 10V 10U	1	
C7910		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7913		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7914		ECQB1H273JH	MYLAR 50V 0.027U	1	
C7916		ECEA1HKN2R2	ELECTROLYTIC 50V 2.2U	1	
			DIODES		
D7303		MA165	DIODE	1	
D7304		MA165	DIODE	1	
D7901		MA165	DIODE	1	
D7956		MA165	DIODE	1	
D7957		MA165	DIODE	1	
D7958		MA165	DIODE	1	
D7959		MA165	DIODE	1	
D7960		MA165	DIODE	1	
D7961		MA165	DIODE	1	
			INTEGRATED CIRCUITS		
IC7301		M51376BSP	IC	1	
IC7901		M5201L	IC	1	
			COIL		
L7391		VLQ0138	COIL 1.2mH	1	
			CONNECTOR		
P7304		VJP1394T	CONNECTOR (MALE) 13P	1	
			TRANSISTORS		
Q7301		2SD636	TRANSISTOR	1	(R,S,T
Q7302		2SD636	TRANSISTOR	1	(Q,R,S,T)
Q7307		2SD638	TRANSISTOR	1	(Q,R,S,T)
Q7308		2SD636	TRANSISTOR	1	(Q,R,S,T)
Q7310		2SD636	TRANSISTOR	1	(Q,R,S,T)
Q7901		2SD636	TRANSISTOR	1	(Q,R,S,T)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			COMBINATION PARTS		
			(TRANSISTOR & RESISTOR)		
QR7301		UN1211	TRANSISTOR-RESISTOR	1	OR DTC114EA
QR7951		UN1113	TRANSISTOR-RESISTOR	1	OR DTA144EA
QR7952		UN1213	TRANSISTOR-RESISTOR	1	OR DTC144EA
QR7956		UN1212	TRANSISTOR-RESISTOR	1	OR DTC124EA
QR7957		UN1112	TRANSISTOR-RESISTOR	1	OR DTA124EA
QR7958		UN1113	TRANSISTOR-RESISTOR	1	OR DTA144EA
			RESISTORS		
R7301		ERDS2TJ154	CARBON 1/4W 150K	1	
R7302		ERDS2TJ101	CARBON 1/4W 100	1	
R7303		ERDS2TJ393	CARBON 1/4W 39K	1	
R7304		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R7305		ERDS2TJ221	CARBON 1/4W 220	1	
R7306		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R7307		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7308		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R7309		ERDS2TJ221	CARBON 1/4W 220	1	
R7310		ERDS2TJ102	CARBON 1/4W 1K	1	
R7311		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R7312		ERDS2TJ103	CARBON 1/4W 10K	1	
R7313		ERDS2TJ104	CARBON 1/4W 100K	1	
R7314		ERDS2TJ104	CARBON 1/4W 100K	1	
R7315		ERDS2TJ101	CARBON 1/4W 100	1	
R7316		ERDS2TJ102	CARBON 1/4W 1K	1	
R7317		ERDS2TJ123	CARBON 1/4W 12K	1	
R7318		ERDS2TJ123	CARBON 1/4W 12K	1	
R7319		ERDS2TJ392	CARBON 1/4W 3.9K	1	
R7320		ERDS2TJ103	CARBON 1/4W 10K	1	
R7321		ERDS2TJ123	CARBON 1/4W 12K	1	
R7322		ERDS2TJ474	CARBON 1/4W 470K	1	
R7323		ERDS2TJ102	CARBON 1/4W 1K	1	
R7324		ERDS2TJ103	CARBON 1/4W 10K	1	
R7326		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R7327		ERDS2TJ221	CARBON 1/4W 220	1	
R7330		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R7331		ERDS2TJ823	CARBON 1/4W 82K	1	
R7332		ERDS2TJ473	CARBON 1/4W 47K	1	
R7333		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R7334		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R7335		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R7374		ERDS2TJ102	CARBON 1/4W 1K	1	
R7902		ERDS2TJ473	CARBON 1/4W 47K	1	
R7903		ERDS2TJ473	CARBON 1/4W 47K	1	
R7904		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R7905		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R7906		ERDS2TJ124	CARBON 1/4W 120K	1	
R7907		ERDS2TJ124	CARBON 1/4W 120K	1	
R7908		ERDS2TJ473	CARBON 1/4W 47K	1	
R7909		ERDS2TJ473	CARBON 1/4W 47K	1	
R7912		ERDS2TJ561	CARBON 1/4W 560	1	
R7913		ERDS2TJ561	CARBON 1/4W 560	1	
R7914		ERDS2TJ392	CARBON 1/4W 3.9K	1	
R7915		ERDS2TJ471	CARBON 1/4W 470	1	
R7916		ERDS2TJ103	CARBON 1/4W 10K	1	
R7917		ERDS2TJ103	CARBON 1/4W 10K	1	
R7951		ERDS2TJ223	CARBON 1/4W 22K	1	
R7952		ERDS2TJ223	CARBON 1/4W 22K	1	
R7953		ERDS2TJ103	CARBON 1/4W 10K	1	
R7954		ERDS2TJ471	CARBON 1/4W 470	1	
R7955		ERDS2TJ103	CARBON 1/4W 10K	1	
R7956		ERDS2TJ103	CARBON 1/4W 10K	1	
R7957		ERDS2TJ223	CARBON 1/4W 22K	1	
R7958		ERDS2TJ104	CARBON 1/4W 100K	1	
R7959		ERDS2TJ473	CARBON 1/4W 47K	1	
R7960		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R7961		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R7962		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R7963		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R7964		ERDS2TJ682	CARBON 1/4W 6.8K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R7965		ERDS2TJ223	CARBON 1/4W 22K	1	
R7970		ERDS2TJ392	CARBON 1/4W 3.9K	1	
R7971		ERDS2TJ392	CARBON 1/4W 3.9K	1	
R7972		ERDS2TJ392	CARBON 1/4W 3.9K	1	
			TRANSFORMERS		
T7301		TLS158358	TRANSFORMER	1	
T7302		EIL7QG003Q	TRANSFORMER	1	
T7303		TLS158361	TRANSFORMER	1	
T7304		TLS158361	TRANSFORMER	1	
T7305		TLS158361	TRANSFORMER	1	
T7306		TLS158359	TRANSFORMER	1	
T7901		VLF0332	FILTER	1	
T7902		VLF0332	FILTER	1	
			VARIABLE RESISTORS		
VR7302		EVNE4AA00B23	VARIABLE 2K	1	
VR7303		EVNE4AA00B14	VARIABLE 10K	1	
VR7304		EVNE4AA00B23	VARIABLE 2K	1	
VR7305		EVNE4AA00B53	VARIABLE 5K	1	
VR7901		EVNE4AA00B53	VARIABLE 5K	1	
VR7902		EVNE4AA00B53	VARIABLE 5K	1	
	■	VEP07400A	NOISE REDUCTION C.B.A.		
			CAPACITORS		
C7365		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C7366		ECQP1H332JZ	MYLAR 50V 3300P	1	
C7367		ECQP1H332JZ	MYLAR 50V 3300P	1	
C7368		ECQP1H222JZ	MYLAR 50V 2200P	1	
C7369		ECQP1H332JZ	MYLAR 50V 3300P	1	
C7371		ECQP1H332JZ	MYLAR 50V 3300P	1	
C7372		ECQV1H224JZ	MYLAR 50V 0.22U	1	
C7373		ECQP1H222JZ	MYLAR 50V 2200P	1	
C7374		ECQV1H224JZ	MYLAR 50V 0.22U	1	
C7375		ECEA1HK3R3	ELECTROLYTIC 50V 3.3U	1	
C7376		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7377		ECQB1H472JH	MYLAR 50V 4700P	1	
C7378		ECEA50MR47	ELECTROLYTIC 50V 0.47U	1	
C7379		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7380		ECSF1CE335E	TANTALUM 16V 3.3U	1	
C7381		ECQV1H474JZ	MYLAR 50V 0.47U	1	
C7382		ECQB1H333JH	MYLAR 50V 0.033U	1	
C7383		ECSF1CE106E	TANTALUM 16V 10U	1	
C7384		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7385		ECEA10M47	ELECTROLYTIC 10V 47U	1	
C7386		ECQB1H472JH	MYLAR 50V 4700P	1	
C7387		ECQB1H103JH	MYLAR 50V 0.01U	1	
C7388		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C7389		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C7390		ECQP1H222JZ	MYLAR 50V 2200P	1	
C7392		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7397		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
			DIODE		
D7302		MA4062M	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			INTEGRATED CIRCUITS		
IC7303		AN6291	IC	1	
IC7304		AN1458	IC	1	
			TRANSISTORS		
Q7305		2SD636	TRANSISTOR	1	(Q,R,S,T)
Q7306		2SD636	TRANSISTOR	1	(Q,R,S,T)
Q7309		2SD636	TRANSISTOR	1	(Q,R,S,T)
			RESISTORS		
R7329		ERDS2TJ184	CARBON 1/4W 180K	1	
R7360		ERDS2TJ512	CARBON 1/4W 5.1K	1	
R7361		EROS2CKF1001	METAL OXIDE 1/4W 1K	1	
R7362		ERDS2TJ151	CARBON 1/4W 150	1	
R7363		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R7364		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R7365		ERDS2TJ103	CARBON 1/4W 10K	1	
R7366		ERDS2TJ223	CARBON 1/4W 22K	1	
R7367		ERDS2TJ333	CARBON 1/4W 33K	1	
R7369		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7370		ERDS2TJ223	CARBON 1/4W 22K	1	
R7371		ERDS2TJ273	CARBON 1/4W 27K	1	
R7372		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7375		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7376		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R7377		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R7378		ERDS2TJ184	CARBON 1/4W 180K	1	
R7379		ERDS2TJ362	CARBON 1/4W 3.6K	1	
R7380		ERDS2TJ184	CARBON 1/4W 180K	1	
R7381		ERDS2TJ683	CARBON 1/4W 68K	1	
R7382		ERDS2TJ151	CARBON 1/4W 150	1	
R7383		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7384		ERDS2TJ393	CARBON 1/4W 39K	1	
R7385		ERDS2TJ821	CARBON 1/4W 820	1	
R7386		ERDS2TJ362	CARBON 1/4W 3.6K	1	
R7387		ERDS2TJ184	CARBON 1/4W 180K	1	
R7388		ERDS2TJ394	CARBON 1/4W 390K	1	
R7391		ERDS2TJ394	CARBON 1/4W 390K	1	
R7395		ERDS2TJ271	CARBON 1/4W 270	1	
R7398		ERDS2TJ473	CARBON 1/4W 47K	1	
R7399		ERDS2TJ222	CARBON 1/4W 2.2K	1	
			VARIABLE RESISTORS		
VR7309		EVNE4AA00B24	VARIABLE 20K	1	
VR7310		EVNE4AA00B13	VARIABLE 1K	1	
VR7311		EVNE4AA00B23	VARIABLE 2K	1	
	■	VEP01283A	POWER C.B.A.		
			CAPACITORS		
C1001		VCK0042	470P	1	<!>
C1002		VCK0042	470P	1	<!>
C1003		VCK0042	470P	1	<!>
C1004		VCK0042	470P	1	<!>
C1005		VCK0046	2200P	1	<!>
C1006		VCK0046	2200P	1	<!>

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C1007		VCK0046	2200P	1	<!>
C1008		VCK0046	2200P	1	<!>
C1009		ECQU2A104MN	MYLAR 250V 0.1U	1	<!>
C1010		ECOS2GU101F	ELECTROLYTIC 400V 100U	1	
C1011		ECQE6473MZ	MYLAR 630V 0.047U	1	
C1012		ECEA1CGE470	ELECTROLYTIC 16V 47U	1	
C1013		ECQV1H473JZ	MYLAR 50V 0.047U	1	
C1014		ECQB1H333JH	MYLAR 50V 0.033U	1	
C1015		ECQM1682KZ	MYLAR 100V 6800P	1	
C1016		ECQM1472KZ	MYLAR 100V 4700P	1	
C1017		ECEB1EG100	ELECTROLYTIC 25V 10U	1	
C1018		ECEA1HGE470	ELECTROLYTIC 50V 47U	1	
C1019		ECEA1EGE102	ELECTROLYTIC 25V 1000U	1	
C1020		ECEA1EGE102	ELECTROLYTIC 25V 1000U	1	
C1022		ECEA1HGE470	ELECTROLYTIC 50V 47U	1	
C1023		ECEA1AGE102	ELECTROLYTIC 10V 1000U	1	
C1024		ECEA0JFE102X	ELECTROLYTIC 6.3V 1000U	1	
C1025		ECEA1HGE470	ELECTROLYTIC 50V 47U	1	
C1027		ECKD3D151KB	CERAMIC 2KV 150P	1	
C1028		ECEA1AGE102	ELECTROLYTIC 10V 1000U	1	
C1029		ECEA1AGE101	ELECTROLYTIC 10V 100U	1	
C1031		VCK0040	220P	1	<!>
C1032		VCK0040	220P	1	<!>
C1037		ECQU2A683MN	MYLAR 250V 0.068U	1	<!>
C1039		ECEA1CGE470	ELECTROLYTIC 16V 47U	1	
C1040		ECQP1101JZ	MYLAR 125V 100P	1	
C1041		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C1042		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C1050		ECKF1H102KB	CERAMIC 50V 1000P	1	
C1051		ECKF1H221KB	CERAMIC 50V 220P	1	
C1052		ECKF1H221KB	CERAMIC 50V 220P	1	
C1053		VCK0042	470P	1	<!>
C1054		VCK0042	470P	1	<!>
C1055		ECKF1H101KB	CERAMIC 50V 100P	1	
			DIODES		
D1001		S1WBA60	DIODE	1	<!>
D1002		AP01CV2	DIODE	1	
D1003		MA178	DIODE	1	
D1004		MA178	DIODE	1	
D1005		MA178	DIODE	1	
D1006		MA178	DIODE	1	
D1007		MA185	DIODE	1	<!>
D1008		MA185	DIODE	1	<!>
D1010		ERD32-01	DIODE	1	<!>
D1013		MA185	DIODE	1	<!>
D1015		ERB83-004	DIODE	1	<!>
D1016		ERA22-02	DIODE	1	<!>
D1019		MA165	DIODE	1	
D1023		ERA82-004	DIODE	1	<!>
D1024		MA178	DIODE	1	
D1025		MA178	DIODE	1	
D1026		MA4082H	DIODE	1	
D1027		ERD32-01	DIODE	1	<!>
D1028		MA4082	DIODE	1	
D1030		ENB461D-05A	SURGE ABSORBER 460V	1	<!>
D1031		ERB83-004	DIODE	1	<!>
			FUSE		
F1003		VSF0056	FUSE	1	
			INTEGRATED CIRCUIT		
IC1001		STK5337	IC	1	
			COILS		
L1001		ELF18D417	COIL	1	
L1002		ELC07D220	COIL 22U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CONNECTOR		
P1001		VJS1963	CONNECTOR 14P	1	
			TRANSISTORS		
Q1001		STR16006	TRANSISTOR	1	<!>
Q1002		2SD638	TRANSISTOR	1	(Q,R,S)
Q1003		2SB643	TRANSISTOR	1	(Q)
Q1010		2SD638	TRANSISTOR	1	(Q,R,S)
			RESISTORS		
R1001		ERC122GK685	SOLID 1/2W 6.8M	1	<!>
R1002		ERF2AK2R2	WIRE WOUND 2W 2.2	1	
R1003		ERDS2TJ394	CARBON 1/4W 390K	1	
R1004		ERDS2TJ394	CARBON 1/4W 390K	1	
R1005		ERDS2TJ394	CARBON 1/4W 390K	1	
R1006		ERDS2TJ394	CARBON 1/4W 390K	1	
R1007		ERG3SJ683	METAL OXIDE 3W 68K	1	
R1008		ERF2AKR30	WIRE WOUND 2W 0.3	1	
R1009		ERD25FAJ100	CARBON 1/4W 10	1	
R1010		ERG12SJ470	METAL OXIDE 1/2W 47	1	
R1011		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R1012		ERQ12HJ6R8P	FUSE 1/2W 6.8	1	<!>
R1014		ERD2FCJ4R7	CARBON 2W 4.7	1	<!>
R1015		ERQ12HKR39	FUSE 1/2W 0.39	1	<!>
R1016		VSF0045	FUSE 2W 4.7	1	<!>
R1017		ERG12ANJ182	METAL OXIDE 1/2W 1800	1	
R1026		ERQ12HJ1R0P	FUSE 1/2W 1	1	<!>
R1027		ERDS2TJ331	CARBON 1/4W 330	1	
R1028		ERDS2TJ271	CARBON 1/4W 270	1	
			TRANSFORMER		
T1001		VLT0320	TRANSFORMER	1	<!>
			MISCELLANEOUS		
		VJF0318	FUSE HOLDER	4	<!>
		VMZ0730	CAPACITOR COVER	1	FOR C1032<!>
		VMZ0955	RESISTOR COVER	1	FOR R1002<!>
		VMZ0996	CAPACITOR COVER	1	FOR C1009<!>
		VSC1831	SHIELD CASE	1	
		VMZ0820	CAPACITOR COVER	1	FOR C1037<!>
	■	VEP01287A	SUB POWER (I) C.B.A.		<!>
			CAPACITORS		
C1301		ECKD3A102KB	CERAMIC 1KV 1000P	1	
C1302		ECEA2WS010	ELECTROLYTIC 450V 1U	1	
C1303		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C1304		ECEA1JU470	ELECTROLYTIC 63V 47U	1	
C1305		ECEA1CU330	ELECTROLYTIC 16V 33U	1	
C1306		ECEA2WS010	ELECTROLYTIC 450V 1U	1	
C1307		ECEA0JU471	ELECTROLYTIC 6.3V 470U	1	
			DIODES		
D1301		ERZC07DK471U	SURGE ABSORBER 470V	1	
D1302		D1R100	DIODE	1	
D1303		D1R100	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D1304		MA4130M	DIODE	1	
D1305		M21CA-Q	THYRISTOR	1	
D1306		MA4180M	DIODE	1	
D1307		03P5MG	DIODE	1	
D1308		D1R100	DIODE	1	
D1309		RD110EB	DIODE	1	
D1310		M21CA	DIODE	1	
			FUSE		
F1301		XBA2C04NU0	FUSE	1	<!>
			COIL		
L1301		VTQ0018	COIL	1	<!>
			CONNECTORS		
P1301		VJP1243T	CONNECTOR (MALE) 3P	1	
P1302		VJP1149	CONNECTOR (MALE) 3P	1	
P1303		VJP2073	CONNECTOR	1	
P1304		VJP1143	CONNECTOR (MALE) 5P	1	
			RESISTORS		
R1301		ERG1ANJ563	METAL OXIDE 1W 56K	1	
R1302		ERG1ANJ563	METAL OXIDE 1W 56K	1	
R1303		ERG1ANJ563	METAL OXIDE 1W 56K	1	
R1304		ERG1ANJ563	METAL OXIDE 1W 56K	1	
R1305		ERDS2TJ123	CARBON 1/4W 12K	1	
R1306		ERDS2TJ102	CARBON 1/4W 1K	1	
R1307		ERDS2TJ101	CARBON 1/4W 100	1	
R1308		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R1309		ERQ12HUJ101P	FUSE 1/2W 100	1	<!>
R1310		ERDS2TJ124	CARBON 1/4W 120K	1	
R1311		ERDS2TJ102	CARBON 1/4W 1K	1	
R1312		ERG1ANJ330	METAL OXIDE 1W 33	1	
			RELAY		
RY1301		VSY2043	RELAY	1	<!>
			TRANSFORMER		
T1301		VTP0227	TRANSFORMER	1	<!>
			MISCELLANEOUS		
		VJF0318	FUSE HOLDER	2	<!>
		VMZ1031	BARRIER	1	<!>
		VHN0041	RIVET	2	
		VMZ0429	FUSE COVER	1	
	■	VEP01288A	SUB POWER (II) C.B.A.		<!>
			CAPACITORS		
C1401		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C1402		ECEA1CU332	ELECTROLYTIC 16V 3300U	1	
C1403		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C1404		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C1405		ECEA0JK221	ELECTROLYTIC 6.3V 220U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			DIODES		
D1401		10E1	DIODE	1	<!>
D1402		10E1	DIODE	1	<!>
D1403		10E1	DIODE	1	<!>
D1404		10E1	DIODE	1	<!>
D1405		MA4030M	DIODE	1	
			FUSE		
F1401		XBA1C20NU100	FUSE 125V 2A	1	<!>
			CONNECTOR		
P1401		VJP1150	CONNECTOR (MALE) 5P	1	
			TRANSISTORS		
Q1401		2SD1273	TRANSISTOR	1	
Q1402		2SD636	TRANSISTOR	1	(Q,R,S)
			RESISTORS		
R1401		ERDS2TJ821	CARBON 1/4W 820	1	
R1402		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R1403		ERDS2TJ123	CARBON 1/4W 12K	1	
			VARIABLE RESISTOR		
VR1401		EVN61AA00B53	VARIABLE 5K	1	
			MISCELLANEOUS		
		VJF0318	FUSE HOLDER	2	
		VSC2076	SHILDE CASE	1	
		VMZ0429	FUSE COVER	1	FOR F1401<!>
	■	VEP00H83A	JACK C.B.A.		
			CAPACITORS		
C6301		ECEA1AKS330	ELECTROLYTIC 10V 33U	1	
C6302		ECEA1EKS3R3	ELECTROLYTIC 25V 3.3U	1	
C6303		ECEA1CKS330	ELECTROLYTIC 16V 33U	1	
C6304		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
			INTEGRATED CIRCUITS		
IC6301		VCR0172	IC	1	
			CONNECTOR		
P6505		VJS1234T	CONNECTOR (FEMALE) 7P	1	
			MISCELLANEOUS		
		VJF0427	JACK HOLDER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP66018A	PROGRAMMABLE REMOTE CONTROLLER C.B.A.		
			CAPACITORS		
C6801		ECEA0GKS101	ELECTROLYTIC 4V 100U	1	
C6802		ECEA1HKS010	ELECTROLYTIC 50V 1U	1	
C6803		ECEA1HKSR22	ELECTROLYTIC 50V 0.22U	1	
C6804		ECKF1H271KB	CERAMIC 50V 270P	1	
C6805		ECKF1H151KB	CERAMIC 50V 150P	1	
			DIODES		
D6801		LN66-S	DIODE	1	
D6802		MA165	DIODE	1	
D6803		MA165	DIODE	1	
D6804		MA165	DIODE	1	
D6805		MA165	DIODE	1	
D6806		MA165	DIODE	1	
D6808		MA165	DIODE	1	
D6809		MA165	DIODE	1	
D6810		MA165	DIODE	1	
D6811		MA165	DIODE	1	
			INTEGRATED CIRCUIT		
IC6801		MN15813VBB	IC	1	
			COMBINATION PARTS (TRANSISTOR & RESISTOR)		
QR6801		UN1231	TRANSISTOR-RESISTOR	1	
QR6802		DTA144EA	TRANSISTOR-RESISTOR	1	
			RESISTOR		
R6801		ERDS2TJ1R0	CARBON 1/4W 1	1	
			SWITCHES		
SW6802		VSS0198	SWITCH	1	
SW6803		VST0092	SWITCH	1	
			CRYSTAL OSCILLATOR		
X6801		EF0A455K06F1	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VJR0253		1	
		VJR0254		1	
	■	VEP00H22A	CYLINDER DRIVE C.B.A.		
			CAPACITOR		
C2901		ECEA1VSN2R2	ELECTROLYTIC 35V 2.2U	1	
C2902		ECEA1VSN2R2	ELECTROLYTIC 35V 2.2U	1	
C2903		ECEA1VSN2R2	ELECTROLYTIC 35V 2.2U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C2904		ECEA1HKSR22	ELECTROLYTIC 50V 22U	1	
C2905		ECEA1HKSR22	ELECTROLYTIC 50V 22U	1	
C2906		ECEA1HKSR22	ELECTROLYTIC 50V 22U	1	
C2907		ECEA1HKSR33	ELECTROLYTIC 50V 33U	1	
C2908		ECQV1H473JZ	MYLAR 50V 0.047U	1	
C2909		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C2910		ECEA1CKS100	ELECTROLYTIC 16V 10U	1	
			INTEGRATED CIRCUIT		
IC2901		AN3812K	IC	1	
			RESISTOR		
R2901		ERX12ANJR68	METAL OXIDE 1/4V 0.68	1	
			CONNECTORS		
P2901		VJP1232	CONNECTOR	1	
P2902		VJP1927	CONNECTOR	1	
			MISCELLANEOUS		
		VSC1843	HEATSINK	1	
		VMA6884	MAIN HOLDER	1	
	■	VEP00H30A	MECHANISM CONNECTION C.B.A.		
			CONNECTORS		
P1504		VJP1939	CONNECTOR	1	
P1505		VJP1242T	CONNECTOR	1	
			RESISTOR -		
R1501		ERDS2TJ223	CARBON 1/4W 22K	1	
	■	VEP00H31A	REEL SENSOR C.B.A.		
			INTEGRATED CIRCUIT		
IC1501		ON2170	IC	1	
			CONNECTOR		
P1506		VJP1242	CONNECTOR 2P	1	
	■	VXA2689	LED C.B.A. UNIT		
			DIODE		
D1501		GL450	PHOTO DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			MISCELLANEOUS		
		VMD0911	LED HOLDER	1	
		VWJ0254	FLEXIBLE WIRE	1	
	■	VEP00H34A	PHOTO TR(T) C.B.A.		
			CAPACITOR		
C1502		ECKW1H102KBN	CERAMIC 50V 1000P	1	
			RESISTOR		
R1503		ERDS2TJ222	CARBON 1/4W 2.2K	1	
			CONNECTORS		
P1503		VJS1936	CONNECTOR	1	
P1508		VJP1242T	CONNECTOR	1	
			TRANSISTOR		
Q1502		PN150NV	PHOTO TRANSISTOR	1	
			MISCELLANEOUS		
		VMD0645	PHOTO TR HOLDER	1	
	■	VEP00H35A	PHOTO TR(S) C.B.A.		
			CAPACITOR		
C1501		ECKW1H102KBN	CERAMIC 50V 1000P	1	
			TRANSISTOR		
Q1501		PN150NV	PHOTO TRANSISTOR	1	
			MISCELLANEOUS		
		VMD0645	PHOTO TR HOLDER	1	
	■	VEP00H60A	FE HEAD C.B.A.		
			TRANSISTOR		
Q1401		2SD636R	TRANSISTOR	1	
			CAPACITORS		
C1401		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C1402		ECQB1H472JH	MYLARROLYTIC 50V 4700P	1	
C1403		ECQB1H333KH	MYLARROLYTIC 50V 0.033U	1	
			COMBINATION PARTS		
CR1401		EXED103Z333T	C & R 0.01U 33K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			COIL		
L1401		VLQEL05F471K	COIL	1	
			TRANSFORMER		
T1401		EIQ7QF002B	TRANSFORMER	1	
			CONNECTOR		
P1402		VJP1148	CONNECTOR	1	
	■	VEQ0536	RF CONVERTER C.B.A.		<!>
			DIODE		
D1		MA4062M	ZENER	1	
			INTEGRATED CIRCUIT		
IC1		AN3122	IC	1	
			TRANSISTORS		
Q1		2SC3130	TRANSISTOR	1	
Q2		2SC3130	TRANSISTOR	1	
Q3		2SC3130	TRANSISTOR	1	
			CRYSTAL OSCILLATOR		
X1		VSX0220	CRYSTAL OSCILLATOR	1	
			NOTE:		
			THE OTHER PARTS FOR		
			RF CONVERTER & ANTENNA		
			BOOSTER UNIT ARE NOT		
			AVAILABLE AS SPARE PARTS.		
	■	ENC86902	RF CONVERTER C.B.A.		<!>
			IC		
IC1		TA7673P	IC	1	
			TRANSISTORS		
Q31		2SC2735	TRANSISTOR	1	
Q32		2SC2735	TRANSISTOR	1	
Q33		2SC2735	TRANSISTOR	1	
Q34		2SC2735	TRANSISTOR	1	
			DIODE		
D1		MA4062	DIODE	1	
			NOTE:		
			THE OTHER PARTS FOR		
			RF CONVERTER & ANTENNA		
			BOOSTER UNIT ARE NOT		
			AVAILABLE AS SPARE PARTS.		
	■	VEP66019F	DIGITAL SCANNER C.B.A.		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CAPACITORS		
C01		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C02		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C03		ECUX1E104ZFM	CHIP 25V 0.1U	1	
C04		ECUX1E104ZFM	CHIP 25V 0.1U	1	
C05		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C06		ECEA1AKA470	ELECTROLYTIC 10V 47U	1	
C07		ECUX1H330JCN	CHIP 50V 33P	1	
C08		ECUX1H330JCN	CHIP 50V 33P	1	
C09		ECUX1H103ZFN	CHIP 50V 0.01U	1	
			DIODES		
D01		MA151WK	DIODE	1	
D02		MA151WK	DIODE	1	
D03		MA151WK	DIODE	1	
D04		MA151WK	DIODE	1	
D05		MA153	DIODE	1	
D06		SE303AY	DIODE	1	
			INTEGRATED CIRCUITS		
IC01		UPD49HG88022	IC	1	
IC02		UPC324G2	IC	1	
IC03		NJM78L02AA	IC	1	
			COIL		
L01		ELT3K017A	COIL	1	
			CONNECTOR		
P01		VJP1229T	CONNECTOR	1	
			TRANSISTORS		
Q01		2SB710	TRANSISTOR	1	(Q,R,S)
Q02		2SB710	TRANSISTOR	1	(Q,R,S)
Q03		2SB709	TRANSISTOR	1	(Q,R,S)
Q04		2SD601	TRANSISTOR	1	(Q,R,S)
			RESISTORS		
R01		ERJ6GMYJ470	CHIP 1/16W 47	1	
R02		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R03		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R04		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R05		ERJ6GMYJ202	CHIP 1/16W 2K	1	
R06		ERJ6GMYJ244	CHIP 1/16W 240K	1	
R07		ERJ6GMYJ162	CHIP 1/16W 1.6K	1	
R09		VER66019BR09		1	
R10		ERJ8GCYK106	CHIP 1/8W 10M	1	
R11		ERJ6GMYJ105	CHIP 1/16W 1M	1	
R12		ERJ8GCYK106	CHIP 1/8W 10M	1	
R13		ERJ6GMYJ361	CHIP 1/16W 360	1	
R14		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R15		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R16		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R17		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R18		ERDS2EJ6R8	CARBON 1/4W 6.8	1	
R20		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R23		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R24		ERJ6GMYJ102	CHIP 1/16W 1K	1	
			SWITCHES		
SW01		VSS0211	SWITCH	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
SW02		VSP0221	SWITCH	1	
			CRYSTAL OSCILLATORS		
X01		VSX0233	CRYSTAL OSCILLATOR	1	
X02		VSQ0552	BUZZER	1	